

NATIONAL PLANNING COMMITTEE, SERIES

MANUFACTURING INDUSTRIES

(Report of the Sub-Committee)

Chairman
AMBALAL SARABHAI

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PREFACE

The National Planning Committee, appointed in 1938, began its work early in 1939. After defining the nature of a National Plan, and determining the nature and scope of the work entrusted to them, the Committee issued an elaborate and comprehensive questionnaire which was subsequently supplemented by specific details. Twenty-nine Sub-Committees, formed into eight groups were set up with special terms of reference to deal with all parts and aspects of the national life and work in accordance with a predetermined Plan.

After some unavoidable delay in getting replies to the Questionnaire, the Sub-Committees began their work, and submitted Reports,—some of them Final, some Interim,—which were considered at Plenary Sessions of the parent Committee in 1940. Towards the end of that year the Chairman, Pandit Jawaharlal Nehru, was arrested and sentenced to a long term of imprisonment, during which the work of the Committee had necessarily to be suspended.

On his release a year later, hope revived for an intensive resumption of the Committee's work. But the outbreak of war with Japan, the threat to India's own safety, and hectic march of political events, rendered it impossible to devote any attention to such work at that time. It, therefore, inevitably went into cold storage once again; and remained for the duration of the War.

When at last the War seemed nearing its end, Pandit Jawaharlal Nehru with other leaders was released. The moment seemed again opportune to resume the work of the Planning Committee. Meetings of that Body were held in September and November 1945, when certain more urgent questions, already included in the programme of National Planning were given a special precedence. A Priority Committee was appointed to report upon them. Changes and developments occurring during the War had also to be taken into account; and another Committee was appointed to review the general instructions, given six years earlier to the Sub-Committees. Revised instructions were issued to them following the Report of this Sub-Committee; and the Chairmen and Secretaries of the several Sub-Committees were once again requested to revise and bring up to date, such of the Reports as had already been submitted—either as final or interim—while those that had not submitted any reports at all were asked to do so at an early date.

As a result, many of the Sub-Committees which had not reported, or had made only an Interim Report, put in their Reports, or finalised them. The parent Committee has had no chance to review them, and pass resolutions on the same. But the documents are, by themselves, of sufficient value—prepared, as they are, by experts in each case, to be included in this series.

The following Table shows the condition of the Sub-Committees' work, and the stage to which the Planning Committee had reached in connection with them.

Serial No.	Name of the Sub-Committee	Final Report		Interim Report		No Reports
		N. P. C. Resolutions	Not considered by N. P. C.	N. P. C. Resolution	Not considered by the N. P. C.	
Group I	Agriculture and other Sources of Primary Production	Handbook Pp. 97-99	.	Handbook Pp.		
1.	Rural Marketing and Finance	83-85				
2.	River Training and Irrigation	113-115				
3.	" " " " "	115-119				
4.	Soil Conservation and Afforestation					
5.	Land Policy and Agriculture					
6.	Animal Husbandry and Dairying	87-89		139-141	.	do
7.	Crop Planning and Production				do	
8.	Horticulture	102-103				
Group II	Fisheries		do			
1.	Industries or Secondary Sources of Production					
2.	Rural and Cottage Industries		do			
3.	Power and Fuel					
4.	Chemicals					
5.	Mining and Metallurgy					
6.	Engineering Industries	75-77	do	77-79 130-133		
7.	Manufacturing Industries		do			
Group III	Industries connected with Scientific Instruments					
1.	Human Factor					
2.	Labour	89-92				
Group IV	Population	85-87				
1.	Exchange and Finance					
2.	Trade					
3.	Industrial Finance					
4.	Public Finance					
5.	Currency and Banking					
Group V	Insurance					
1.	Public Utilities			130	.	do
2.	Transport					
Group VI	Communications					
1.	Social Services-Health and Housing	126 129				
2.	National Housing					
Group VII	Public Health					
1.	Education					
2.	General Education	99-100	.			
Group VIII	Technical Education					
	Women's Role in Planned Economy			133-139	do do	do

To sum up, fourteen Sub-Committees had made final reports, of which ten have been considered, and Resolutions taken upon them, by the National Planning Committee. Twelve more have presented Interim Reports, of which nine have been considered by the Planning Committee, with Resolutions thereon, while three Sub-Committees have not yet presented any report on the reference made to them.

The idea that all this material, gathered together with the help of some of the best brains in India in the several departments of our national life, should be printed and published was before the Committee from the start. But the interruption caused by the war prevented its realisation. It was once again mooted in 1941; but the moment was not deemed ripe then for such action, partly because the leading spirits in almost every one of the Sub-Committees were unable to devote time and labour to bring their Reports up-to-date; and partly also because war-time restrictions or shortages had made scarcer than ever before the statistics and other facts, which particular sub-committees would need, to bring their work up-to-date. The War time needs of Government had attracted several of them to work on Government Bodies, Panels, or Committees. For all these reasons it was deemed undesirable that material of this character—valuable as it must be—should be put out in an incomplete, inchoate, obsolete form, which may reflect unfavourably upon Indian capacity for such tasks.

The four last years of the War were thus a period of suspended animation for the National Planning Committee. Even after the end of the war, it has not been feasible for obvious reasons, for the Planning Committee to resume its work and finalise decisions. Continuous Sessions of that body are indispensable for considering and taking decisions on the Sub-Committee reports presented since 1940, and putting all the material into shape, ready for publication, not to mention making its own Report; but the political situation in the country made it impossible. Other conditions, however, are somewhat more favourable than in 1938-39, when the Central Government of the country were all but openly hostile to such attempts. Lest,

however, the momentary difficulties make for needless further delay, it was thought advisable by the Chairman and the undersigned that no more time should be lost in putting this material before the Public. Following this advice, it is now proposed to bring out a complete Series of the National Planning Committee's Sub-Committee Reports, which will serve as appendices to the Parent Committee's own Report. The Plan of the proposed enterprise is briefly summarised below.

Every Sub-Committee's Report, which is in a final form and on which the National Planning Committee has itself taken resolutions, will be edited and published, with an Introduction assigning their due importance to the suggestions and recommendations contained in that particular report, its proper place in the over-all National Plan ; and following it up, wherever necessary, by a kind of Epilogue, summarising the developments that have taken place during the seven years, during which the work of the Planning Committee had been in suspension.

Those Reports, again, which, though in a final form, have not yet been considered, and no resolutions taken thereon, by the Planning Committee, will also be included in the Series in the form in which they were submitted, with such Introduction and Epilogue to each as may be deemed appropriate. And the same treatment will be applied to Reports which are 'Ad Interim', whether or not the parent Committee has expressed any opinion on the same. They will be finalised, wherever possible, in the office, with such aid as the Chairman or Secretary of the Sub-Committee, may be good enough to render. Sub-Committees finally, which have not submitted any Report at all,—they are very few,—will also find their work similarly dealt with. The essence, in fine, of the scheme is that no avoidable delay will now be suffered to keep the National Planning Committee's work from the public.

Both the Introduction and the Epilogue will be supplied by the undersigned, who would naturally be grateful for such help as he may receive from the personnel of each Sub-Committee concerned. The purpose of these additions is, as already stated,

to assign its true place to each such work in the overall Plan ; and to bring up the material in each Report to date, wherever possible.

Not every Sub-Committee's Report is sufficiently large to make, more or less, a volume by itself, of uniform size, for this Series. In such cases two or more Reports will be combined, so as to maintain uniformity of size, get-up, and presentation of the material. The various Reports, it may be added, would not be taken in the order of the classification or grouping originally given by the Planning Committee ; nor even of what may be called the intrinsic importance of each subject.

In view of the varying stages at which the several Reports are, for reasons of convenience, it has been thought advisable to take up for printing first those which are final, and on which the Planning Committee has pronounced some resolutions. Printing arrangements have been made with more than one Press, so that two or three Reports may be taken simultaneously and published as soon as possible so that the entire Series may be completed in the course of the year.

Two other Sub-Committees not included in the list of Sub-Committees given above, were assigned special tasks of (1) preparing the basic ideas of National Planning ; and (2) outlining the administrative machinery deemed appropriate for carrying out the Plan. These were unable to function for reasons already explained. The present writer has, however, in his personal capacity, and entirely on his own responsibility, published the "Principles of Planning" which attempt to outline the fundamental aims and ideals of a National Plan which remains to be considered by the Planning Committee. Similarly, he has also attempted to sketch an administrative machinery and arrangements, necessary to give effect to the Plan, when at last it is formulated, and put into execution. Notwithstanding that these two are outside the Scheme outlined in this Preface, they are mentioned to round up the general picture of the arrangements made for publication of the entire work up-to-date of the National Planning Committee and its several Sub-Committees.

The several volumes of Sub-Committee Reports, when published, will be treated as so many appendices to the Report of the parent body, the National Planning Committee. It is impossible to say when that Committee, as a whole, will be able to hold continuous sessions, review and resolve upon Sub-Committee Reports which have not yet been considered, and lay down their basic ideas and governing principles for an all over Plan, applicable to the country, including all the facts of its life, and all items making up the welfare of its people.

The disturbed conditions all over the country, and the Labour unrest that has followed the end of the War has caused unavoidable delays in printing and publishing the several volumes in the series, which, it is hoped, will be excused.

In the end, a word of acknowledgment is necessary to put on record the aid received by the Editor in the preparation and publication of this Series. All those who are associated in the task,—members of the Parent Committee, or as Chairmen, Secretaries or Members of the various Sub-Committees, have laboured wholly, honorarily, and consistently striven to give the best that lay in them for the service of the country. Almost all Provincial Governments and some States,—the latter twice in some cases,—have made contributions towards the expenses of this office, which have been acknowledged and accounted for in the Handbooks of the Planning Committee, published earlier. Suitable appreciation of these will be expressed when the Parent Committee makes its own Report. At almost the end of its task, the expenditure needed to edit, compile, and otherwise prepare for the Press, the several Reports, has been financed by a Loan by Messrs. Tata Sons Ltd., which, even when repaid, will not diminish the value of the timely aid, nor the sense of gratitude felt by the undersigned.

Bombay, 1st July, 1947.

K. T. Shah

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INTRODUCTION

The Manufacturing Industries Sub-Committee was appointed to consider the general Terms of Reference made to the Industries Section of the Sub-Committees appointed by the National Planning Committee. They included all Industries, both small scale Cottage Industries or Handicrafts and large scale Industries equipped with power-driven machinery, and employing a large number of workmen; but left out of consideration two important groups, namely, Defence Industries, and those relating to Consumption Goods. It was tacitly assumed that the former need not be considered by the National Planning Committee, as under the then Constitution of the country, (Government of India Act 1935) Defence was outside the scope of any thought of responsible Government at the Centre. The National Planning Committee nevertheless defined what constituted Defence Industries (see foot-note). The latter group, not specifically defined or considered as such by a special Sub-Committee, came nevertheless within the purview of several industries, *e.g.* Cottage Industries Sub-Committee.

Section II of the Sub-Committee included the following Groups of Industries :—

SUB-COMMITTEES IN GROUP II.

- (1) Cottage and Rural Industries, including marketing of products and Finance,—both working and initial capital.
- (2) Power and Fuel Industries.
- (3) Chemical Industries.
- (4) Mining and Metallurgical Industries.
- (5) Engineering Industries (Machine Tools and Prime Movers, etc.) including Transport Industries, producing vehicles, parts, accessories and equipment.
- (6) Manufacturing Industries.
- (7) Industries connected with Public Services, such as Education (Press, Cinema, etc.), Sanitation, Making scientific instruments and appliances, etc.

TERMS OF REFERENCE.

The General Terms of Reference to this whole Group were given as follows :—

This group of Sub-Committees deals with industries, including both small scale (or cottage) industries and large scale industries equipped with power-driven machinery and working for a large market, national or international.

The questions relating to these are comprised in the questionnaire, particularly questions Nos. 10-16, 17-40, 146-151, and in the supplementary questionnaire Nos. 1-6, 17-26, 65-70 inclusive. (See Appendix I).

The following are the general terms of reference for this group of Sub-Committees ; in addition to these general terms and references, specific terms for each of the special Sub-Committees will be found under the corresponding heading *infra*.

(a) Location of industries, with due regard to the raw materials needed, power supply required, man-power available and market to be supplied. In cases where more than one locality has these facilities for establishing any industry, the problem of location will also comprise the coordination and rational distribution of several such establishments, so as to avoid over-production, misdirection of national energy, or internal rivalries. Due regard should be paid to the fullest utilisation by every unit in the country of all locally available raw materials, fuel or labour supply, and local or national market, in order to avoid any chance of monopolies being developed in industries under private ownership and management ;

Defence Industries.

1. Fire arms (land, air and marine) and their parts.
2. Munitions, cartridges, explosives, shells, torpedoes, etc.
3. Tanks and armoured cars and other forms of mechanical equipment especially designed for military purposes.
4. Warships of all types including Submarines.
5. Military Air-craft of all kinds.
6. Gases for warfare and gas-masks.

Note : Warships and military aircraft can also be made in ordinary peace time establishments.

Key Industries.

1. Power—Hydro and thermal (generator).
2. Fuel, coal and fuel wood, mineral oil, power alcohol, natural gases.
3. Metals, ferrous and important non-ferrous, including winning of ore for them.
4. Industries for the making of machine tools.
5. Industries for the making of machinery and machinery parts.
6. Heavy engineering industries for the building of ships, locomotives, waggons, automobiles, air-craft and the like (vital), (standards).
7. Chemicals, heavy chemicals, fine chemicals including dyes (some vital), fertilisers & refractories.

Public Utilities.

1. Distribution of electricity, gas and other forms of energy.
2. Public transport and communication services.
3. Water supply.
4. Sanitation.

Banking and Insurance were reserved for consideration later.

The above list is a tentative one which might be added to or varied in future. It was resolved to forward it to the Sub-Committees concerned for their consideration.

(b) Conservation and full economic utilisation of natural resources, especially minerals and fuel sources ;

(c) The Agency to conduct, control or supervise these industries,—whether individual, partnership firm, joint stock companies, statutory corporations, local bodies, provincial governments or national governments, Indian or non-Indian.

Policy and legislation relating to this question of the agency to conduct, control or supervise particular industries may be enumerated by all the sub-committees in this group sitting together. Ways and means of acquiring industries of national importance by Government if not under public ownership and management from the start.

(d) Regulation and control of such monopolies including trusts and cartels, as may have been developed in any industry (e.g. cement, or shipping, electrical, safety match) ;

(e) Housing of industries in the appropriate buildings, equipment with plant and machinery ; size of operations ; rationalisation of existing industries, admitting of such improvement ;

(f) Finance of each of these group of industries to be considered in collaboration with special sub-committees dealing with industrial finance, both by way of initial and working capital ;

(g) Marketing of the produce, both in India and outside, with due regard to the maintenance of a reasonable stability of prices ;

(h) Protection, encouragement, assistance or safeguard of such industries by the State in an appropriate form and to an adequate degree ; particularly against international combines ; consideration of the fiscal policy of the country ;

(i) Industrial Legislation, providing for control and supervision of industry, standardisation, maintenance of efficiency, rationalisation of work, regulation of markets etc. ; patents (and copyrights), licensing, and general policy regarding mining concessions ;

(j) Legislation regarding relations of employer and workmen, including the maintenance of industrial peace, together with ways and means for ensuring it ;

(k) Defining general policy affecting competition and co-ordination between cottage industries and industries worked by power-driven machinery ;

(l) To survey the present deficiency of technically trained men in all branches of industry, and suggest measures for making good the deficiency ;

N. B.—The various sub-committees concerned should submit a note on this subject to the Technical Education Sub-Committee.

(m) To consider measures for manufacture of the necessary machinery and apparatus and submit notes thereon to the Engineering Industries Sub-Committees.

The group of Key Industries is given in an appendix.

N. B.—No mention is made here of industries concerned with consumption goods and services ; but they will have to be taken up later."

The Sub-Committee prepared its own procedure and the Chairman explains it in the main Report. Owing, however, to the suspension of the National Planning Committee's work, between September 1940, and September 1945, it was not possible to complete the Reference and submit the Report as programmed.

Apart from the general meetings of Chairmen and Secretaries of Sub-Committees, no Joint Meetings of Sub-Committees concerned with particular aspects of this subject were held. Nor was it possible to obtain final decisions of the National Planning Committee on points of policy involved as regards the Agency to manage Industries, and financing of Industries, whether managed by private enterprise or some public agency. These matters still remain to be dealt with and settled by the National Planning Committee, when that Body holds its next Plenary Sessions to complete its work and make its own Report.

Another handicap that the Sub-Committee laboured under consists in changes in personnel, and lack of adequate response from those correspondents who had been appointed to help the Sub-Committee in its work as regards particular industries. The Honorary Secretary of the Sub-Committee, who had contributed considerably in shaping the ground and preliminaries of the Sub-Committee's work, was unable to complete the task at the end on account of other official responsibilities placed upon him. An Interim Report was submitted in 1940, and the Parent body, the National Planning Committee, passed some Resolutions on the same. But the final Report had to be compiled unaided by the Chairman of the Sub-Committee, in response to the request from this Office to do so at an early date by himself. It was submitted in 1946, being circulated at the same time to Members of the Sub-Committee as well as to those of the National Planning Commit-

tee for information and such suggestions as the members of the Sub-Committee chose to offer.

In view of the handicaps mentioned above, the Report could not consider such matters as the relief that a properly planned development of Manufacturing Industries, detailed in the Lists appended, would afford in respect of the pressure of population now supported by Agriculture all over the country, so as to make for a more even distribution of that pressure, better employment, and higher standard of living. Needless to add it has not been possible to submit it to the entire Sub-Committee for its approval.

MEANING OF A NATIONAL PLAN.

The National Planning Committee has defined a National Plan as follows in a Note for the guidance of Sub-Committees :—

“What is Planning? Planning under a democratic system may be defined as the technical coordination by disinterested experts, of consumption, production, investment, trade and income distribution, in accordance with social objectives set by bodies representative of the nation. Such planning is not only to be considered from the point of view of economics and the raising of the standard of living, but must include cultural and spiritual values and the human side of life.”

“The fundamental aim to be kept in view is to ensure an adequate standard of living for the masses. An adequate standard of living implies a certain irreducible minimum, plus a progressive scale of comforts and amenities.”

“A really progressive standard of life will necessitate the increase of the national wealth five or six times. But for the present the minimum standard which can and should be reached is an increase of national wealth of between two and three times within the next ten years. It is with this object in view that we should plan.”

“The different sectors of the Plan have necessarily to be coordinated. The essence of planning is an advance on all fronts. There must be agricultural planning, the object being that the country should be at least self-sufficient as regards foodstuffs measured in terms of the food index given above, and as regards the quantity of raw materials this should be raised by a pre-determined percentage. Soil conservation, afforestation, grass land management, flood control and river management and improvement of inland navigation and transport, improvement of livestock and fodder supply, are items in the planned programme which have not yet been taken up systematically. Power development and the conservation and development of coal and

other kinds of fuel for industrial power also demand planning. More important is the planning of different kinds and types of industries, large, medium, and cottage, which alone may effectively mitigate the present pressure of population on the soil. Within a decade the aim should be to produce a balanced economic structure in which about half the population would depend on agriculture."

"Education, general and vocational, and development research also have to be included in a planned programme.

"The place and organisation of public services should be in keeping with the requirements of the Plan."

"No planning can succeed if the rate of economic progress is outrun by the rate of increase in population. In the planned economy of India emigration shall not be based on the deliberate policy of developing population, so as to create a surplus to settle in other countries but such surplus may be allowed to emigrate through agreements with other countries with due regard to the rights of such settlers in those parts."

Under this conception, the National Plan would necessarily be a *comprehensive, coordinated, continuous Programme of all-round development*, proceeding simultaneously on all fronts of Production and Distribution of the National Wealth, of material as well as cultural progress. In such a Programme emphasis may vary from time to time on particular aspects or items in the Plan according to the special conditions, circumstances, or emergency of any given moment. The rate of progress in the several sectors or items of the Plan should follow predetermined standard; but these may differ from year to year or from item to item. But the basic conception of an all-round, simultaneous, continuous programme of controlled growth to predetermined goal in every field and in every item would not be affected. Nor would, in such a programme, any hindrance be permitted on the score of what is called "Practicable". Usually that is only an excuse for maintaining intact the vested interests of individualist exploiters; and not a reason for pursuing and attaining the goal. "Practical" is the enemy of the "Ideal".

AIMS AND OBJECTIVES.

This conception of the Planned National Development must aim primarily at *National Self-Sufficiency*. The National Planning Committee has put forward that objective in the following terms :—

"The principal objective of planning the national economy should be to attain, as far as possible, *National Self-sufficiency*, and not primarily for purpose of foreign mar-

kets. This does not exclude international trade which should be encouraged but with a view to avoid economic imperialism. The first charge on the country's produce—agricultural and industrial, should be to meet the domestic needs of food supply, raw materials, and manufactured goods. But outlets for surplus goods may be explored to meet the requirements of India's international indebtedness."

In view of all these difficulties, the Report may appear to suffer in some particulars. It was, however, the original intention to have all reports of Sub-Committees prepared in broad general outline. Given the conditions under which the National Planning Committee was appointed and had to function, its Sub-Committees could do no more than suggest some very broad line of policy and approach in dealing with each group of problems entrusted to each Sub-Committee ; while it was left to the National Planning Committee as a whole to co-relate and coordinate all those suggestions into a comprehensive consistent general programme of an all-round planned development of the country. The lack of details, therefore, in this Report must not be deemed a specific ground for adverse criticism.

PURPOSE OF INTRODUCTION AND EPILOGUE

The purpose of this Introduction is, not to review the Report, but to assign a proper place to the suggestions and recommendations made therein, so as to fit them into an over-all Plan of industrial development of the country as a whole, as also its advance simultaneously on other fronts of our national life. Those portions of the Report, therefore, which deal with matters primarily in the jurisdiction of other Sub-Committees ; such as Labour, or Industrial Finance,—though directly the concern of these suggestions, will be co-related with the corresponding proposals of those other Sub-Committees, so as to build up the several parts of the Plan into an integral whole.

In the Epilogue, similarly, note will be taken of the work done by the Central Department of Planning and Development, its several panels and committees appointed by other Departments of Government, or by States, Provinces or Local Self-Governing Bodies, in so far as they relate to this field. These activities were not of or under the auspices of the National Planning Committee. But in view of the relevance or connection of this material as a whole with the central theme of Planning, there can be no objection to its being utilised, so as to make this work as full and complete as is possible. Much of this material, moreover, expressly deals with problems of post-war reconstruction, including questions of public policy relating to Industries, and a closer correlation between Small and Large-Scale Industries.

N. P. C. QUESTIONNAIRE ON MANUFACTURING INDUSTRIES.

The original Questionnaire, issued by the National Planning Committee, had sought, from the various Provinces and States, as well as from non-official Organisations of Industry, Commerce, or Labour, and Statutory bodies like Universities, information regarding the then prevailing conditions on such matters as the raw materials available in the country, imports of goods manufactured from them from abroad ; Industries operated by individual workers in their own homes on a small scale, together with the reaction on these from internal or foreign competition from large-scale machine-made goods on their prospects ; and the attempts made to coordinate the claims of large-scale against those of Cottage Industries, whether in principal or subsidiary production ; the organisation and extent of the market within each region, or in the country as a whole, or for export abroad ; the possibility of further developing existing Industries and establishing new Industries, with special reference to availability of raw materials, skilled and technical labour, and the necessary capital equipment ; the equipment of each Industry by the necessary capital equipment ; the equipment of each Industry by the necessary power,—whether of animal, mechanical or electrical energy ; their suitability in the various regions of the country, and proper diffusion throughout the land, so as to provide the fullest employment and bring about the utmost utilisation of the man-power and material resources in every part of the country ; the adequate distribution of the existing as well as new power supply ; scientific exploitation of Mineral and Forest resources, as well as the manufacture of articles from other commodities such as 'break-fast foods out of cereals, canned fruit and preserves, etc.

Each Sub-Committee in this Group was expected to deal with these matters along with others appointed by the National Planning Committee, wherever common ground or overlapping concerned required such treatment. The problem of Research,—scientific as well as technical,—relating to the advance of these industries had, similarly, to be examined and recommended upon. Finally, the much larger issue of basic policy regarding the agency to conduct each enterprise, though the ultimate concern of the Planning Committee as a whole, had to be considered also by each Sub-Committee, which had to make its own recommendations on the items referred to it.

NATIONAL SELF-SUFFICIENCY NOT CLOSED ECONOMY.

The main objective of the National Planning Committee was to secure, as far as possible, National Self-Sufficiency, without at the same time making the country an absolutely closed economy. While under a nationally planned economy, its character, volume, and direction would change radically in consequence of the Plan,

coming into operation. The emphasis on Industries of all kinds laid by the National Planning Committee was due to this ambition of national development. It was reinforced by the realisation that the country's resources, in the shape of available raw material of all kinds as well as man-power were almost unknown, and so not being fully utilised. We were, consequently, not only poor and backward, but becoming progressively poorer every day. Such exploitation of available indigenous resources, as had taken place, was largely through foreign agency and enterprise, which drained annually more wealth from the country than added to it. This was due partly, also, to the lack of any definite, consistent plan and purpose, which made even such development as had taken place under Indian agency lopsided, haphazard, and uncoordinated, concerned more with individual wealth or welfare than with national development and all-round prosperity.

By developing suitable industries in every part of the country, by reconditioning and reorganising its agricultural system, by exploring and exploiting the Forest and Mineral resources to the utmost and expanding and improving all Services and Utilities, it was hoped not only to re-distribute the pressure of population now resting unduly heavily on the soil to alternative employment in Industries, Services, Utilities, and Commerce so as substantially to improve the standard of living; but also to bring about a balanced economy in the country, and make each region as fully developed as possible.

LIMITS OF INDUSTRIAL DEVELOPMENT.

The limits to which industries can be developed or established in this country would be dictated by the extent of the market, the available raw materials, skilled and unskilled labour, and appropriate capital equipment. The last of these items may not appear to be forthcoming, in all its modern forms and required proportions, within the country. Recourse must, therefore, be had to obtaining it from abroad, in accordance with a predetermined plan of all-round development. The terms and conditions on which Foreign Capital and Technical skill may, if necessary, be attracted to this country or invested in its industries, are detailed later on in this Introduction.

INDIGENOUS RAW MATERIALS.

As for the first two, the Report shows a large variety of material available within the country, which is not utilised, or only partly utilised. The country in consequence is left dependent on foreign imports for the amount of these commodities not produced in the country; and also without full employment for

its available man-power. In scientific planning, therefore, it may well be the aim that : all the raw material produced within the country should be manufactured into finished goods, ready for consumption, within the country itself. There is no lack of raw materials for Manufacturing Industries even to-day. With agriculture reorganised, forests developed, mines fully worked, India would have a superabundance of raw materials for almost all the needs of life within her own borders ; and so her industrial development can be pushed up to a high degree within a short time

Here is a legitimate upper limit, or norm to fix the goal of our industrial development,—the working up of our own raw materials. In case the growth of Industrialisation, resulting from the attainment of such an objective, is in excess of our own requirements ; and in case the progress of the Plan itself does not increase the purchasing-power of the community to a level where this increased quantity could well be consumed within the country itself, export of this excess, a real surplus of production, would inevitably follow. But it should not be the deliberate aim of our planned national development to produce for export, for dumping our wares on unprotected foreign markets. We are well within our rights to build up our industries to meet our own needs from our own resources ; we would be on doubtful ground if we push up our industries to capture other people's markets.

It is possible, indeed, that the progress of the Plan may improve and increase the quantity of raw material produced in the country ; and the industrial organisation, designed to consume the whole of the raw material produced in the country, may also go on expanding in its output of finished goods from stage to stage of the Plan. Lest this may be a veiled threat to other countries producing the same commodities, that their local markets may be dumped upon by these Indian Goods, care must be taken to see that this increased output is absorbed by the enhanced purchasing-power of our own people, by a corresponding improvement in their standard of living, thanks to the successful prosecution of the Plan. This would be particularly important and necessary in any Industries that receive State aid or protection in any form or degree. Fuller reference will be made to this point in a later section of this Introduction.

MEET OUR OWN DEMAND.

An alternative limit to the growth of local industry, under the Plan, may be found in the desirability to supply the entire demand of our indigenous market. It may be limited at any given moment ; but by its very nature this demand is elastic. It will expand with every stage in the progress of the Plan attained. If such expansion proceeds faster than the growth of

local industry, the local output may not suffice to meet the whole of the local demand from the raw materials produced within the country, unless some supplement is provided by imports of such finished goods, or the required raw materials from abroad. Here is another avenue for beneficial international trade under the Plan. While recognising the justice of the claim to meet, from our own production, the entire demand of the local market, a just and scientific National Plan for this country should not press the ideal to such an extent as would refuse to meet any part of the local demand out of imports of such finished goods from abroad; and insist upon importing the additional raw materials only to be worked up into finished goods by our own industry up to the maximum of our local demand for those commodities.

The Sub-Committee does not deal with this problem, because it is a matter of general policy rather than part of their specific Reference. It is for the National Planning Committee to lay down the lines of policy in this regard, as it involves considerations other than the immediate possibilities or prospects of each industry or group of industries. It also does not deal with any scheme of priorities, as between the several industries considered by it; nor lay down definite targets, or control figures, to be pursued from year to year so as to gauge the progress of the Plan in that sector. These also are matters of general policy, temporary expediency, or executive discretion, which may well be reserved for the Parent Committee to determine.

• TECHNICAL SKILL—FOREIGN EXPERTS.

The problem of adequate skilled and technical labour available in the country in proportion to the expanding industries under the Plan, and the ways and means for providing the necessary capital in respect of machinery and plant, are briefly considered in the Report; but the reactions of the recommendations on other aspects of policy on these matters remain to be examined. So also the question of the agency to administer or operate the growing industrial sector of the Plan, which is touched upon in this Report, but the main policy still remains to be defined by the National Planning Committee. The need, wherever felt, of some form of State aid or protection to nascent industry, and the conditions or circumstances under which such aid and protection may be provided; the safeguards against development of Trusts, Syndicates, or Monopolies in sectors where private enterprise prevails under the Plan,—and which may be hostile in spirit, if not in the letter, to the execution of the Plan, in all its ideals, aspects or items,—require also to be more fully considered from an over-all standpoint, as they vitally affect the development of all possible industries to their maximum poten-

tiality. The remarks offered on them in this Introduction are accordingly not needless interpolation, but relevant and necessary, as the Introduction is designed to determine the place of this Report and its recommendations in the general frame of planned economy for this country.

WAYS & MEANS OF SECURING FOREIGN TECHNICIANS.

For securing the fullest benefit of the Plan, adequate organisation of the Labour Supply and mobilisation of the man-power of the country is necessary. For providing adequate supply of skilled labour in all branches of productive activity,—whether Agriculture, Industry, Forestry, and Mining ; Trade, Banking, Insurance or Transport Services ; Power supply, Health ; Education, Entertainment and the like,—appropriate training arrangements must be made, side by side with providing employment for such trained personnel. The Sub-Committee briefly deals with all these ; but the fuller treatment of the several problems listed above lies, primarily, in the jurisdiction of other Sub-Committees, like Labour, Education, Health, Banking, Insurance, Transport etc. The national policy relating to these has been formulated by the Government of India in 1945. But that policy is mainly concerned with Industries, not with Planning the life of the country as a whole ; and so will need to be reviewed by the National Government when set up in this country.

The sub-joined remarks are in the nature of suggestions which may well be considered and decided by the parent body when it makes its own Report. Fluctuations in the volume of employment in any particular industry, Public Utility, Social Services, cultural activities, must be minimised, if the Plan is co-related in all its several items and aspects, and the supply of Labour in each. In case, however, due to specific circumstances of any given moment, or sudden and unexpected emergencies, a substantial change in the volume of employment becomes inevitable in particular directions or activities, means must be found to make these derangements of the minimum extent and duration possible. If at any time work becomes absolutely less in volume, then the reduced volume must be equitably shared among all workers.

This will be facilitated and expedited if the entire industrial labour in the country, including Public Utilities and Social Services, is required to be reorganised into Trade Unions or Professional Guilds.

Organisations of Labour, whether Trade Unions or Professional Corporations, with their adjunct of Labour Exchange Employment Bureau, Information Depots and other such machinery, must be made compulsory, if only to facilitate the administration of the Labour section of the Plan. Every worker

must be required to join an appropriate organisation as condition precedent for receiving the full benefit of all the Labour Legislation, and other means to improve the lot of labour.

There will have to be some measure of social conscription also providing work for all adult workers in accordance with their aptitude and training, and eliminating parasitism of any kind.

The need for trained personnel, however, is no less intense than exacting. It is possible that, in the initial stages of the Plan, trained personnel may not be available within the country itself. In that case, such assistance will have to be obtained from outside sources so as to tide over the initial difficulty. Regarding the terms and conditions on which such foreign labour should be attracted, there is no great difference of opinion ; and so it is unnecessary to labour that point further.

FINANCING THE PLAN

Substantially the same principles should be applied to the need, if any be felt, for attracting foreign capital to complete any section or aspect of the National Plan. Generally speaking, there would be greater objection to the investment of foreign capital in any enterprise under the Plan, than to the import of foreign skilled labour. The explanation lies in the fact that, whereas Labour can be definitely restricted, in time and space, Capital is likely to have its influence in unseen ways and to an unfathomable degree. It is not so much the Foreign Capital, as the Foreign Capitalist that is most objected to. India has had, in the past, unhappy experience of the ways and means of this element operating through the mystic bonds of kinship in race with the governing class. She should, therefore, be doubly careful against any continuation or repetition of that insidious influence in her planned programme of development when National Government takes that matter in hand.

The terms and conditions, therefore, on which Foreign Capital may be allowed to be invested in any part or enterprise under the National Plan, if proved to be absolutely inevitable, should be so framed as to restrict its influence to the inevitable minimum. The right, moreover, must be reserved to Government for effective control over the policy and management of every enterprise, utility or service, which is part of the Plan and financed, in part or wholly, by such foreign capital. The National Planning Committee has passed a Resolution on this subject which is reproduced in the foot-note on page 30.

The problem of financing the Plan as a whole must be considered not simply as a grant from the Central Government. The following observations are dictated by past experience or some knowledge of the practice in other countries.

Financing of the Plan, in its several aspects or items, both as regards current and capital expenditure, will have to be distributed as between :—

1. Government of India or the Union Government,
2. The Government of the various Units, whether States or Provinces, which are members of the Union, and
3. Private enterprise, Banks or other Financing Institutions.

Estimates of the Capital Finance needed for carrying out the Plan,—particularly in regard to the non-recurring Capital Expenditure,—could only be based on past experience of similar ventures, or present conditions. Neither of these, however, is altogether reliable for making such calculations today, as not only prices but technical conditions vary from time to time. Actual figures, when finally realised, will be certainly considerably different from any estimates.

* The National Planning Committee are of opinion that a stage has now arrived in the economic evolution of India when the investment of foreign capital in Indian Enterprise should receive urgent consideration with reference to its bearing on the future political as well as economic development of the country. They have accordingly given special attention to this problem in the course of their enquiry and have arrived at the following conclusions.

The investment of foreign capital in Indian agricultural, mineral and industrial concerns since the establishment of British rule, has resulted in the acquisition by foreign interests of a measure of control over India's economic and political life which has both warped and retarded national development.

It is important that the investment of foreign capital in Indian enterprise should not ordinarily be permitted hereafter in a form which would entitle it to ownership and management in respect of industries of national importance.

In particular in the case of key industries, involving the use of secret processes which would not otherwise be available to the country, foreign participation in ownership and management may be permitted. Such participation should be subject to the approval of the State, which will lay down the conditions and limitations to safeguard adequately Indian National interests.

It is possible in view of India's vast capital requirements in the coming years, that she may need capital from other countries. It is not, however, in her interest to accept it, if it is required for essential industries, except in the shape of loans, or credits, raised by or through the State.

In order to enable India to plan her economic developments on lines that would ensure and promote the vast interests of the country the special statutory safeguards provided in the Government of India Act 1935, in respect of non-Indian concerns should be forthwith repealed.

It is essential that foreign interests which now exercise a predominant control over certain vital industries in India, particularly those involving the utilisation of scarce natural resources should be acquired by the State on payment of reasonable compensation.

Where such interests are held by Companies with sterling capital the payment of compensation should be effected by means of the sterling balances now held by India. The question of the employment of sterling balances for this purpose should, therefore, be taken up immediately for examination.

Notwithstanding the difficulty of making such estimates, attempt must be made, making due allowances for the possibility of variation on account of factors outside the control of the Indian Authorities, e.g. Price-level or international Exchange, scientific discoveries, or mechanical inventions affecting these calculations. The Plan, being necessarily a long-term arrangement, would be exposed to such factors which may falsify the estimates quite adventitiously.

The proportion of such outlay, to be shouldered by any of the agencies mentioned above, is equally difficult to lay down in advance. Certain general principles, however, may be indicated which should govern their respective share for capital financing, and current expenditure, or working costs.

FINANCING BY PUBLIC ENTERPRISE

Thus for example :

(a) For any Industry, Service, or Utility, which is of a National character, and of vital importance to the very life of the people, e.g. Industries concerning National Defence, or which is, so to say, a mother industry on which other industries may be based, e.g. Iron and Steel Industry, or the production of Machinery,—the Union Government alone should provide all the necessary capital finance, and carry on the management of such Industries. That is to say, it should provide the fixed as well as working capital, own the Industry, and take the surplus, if any, from such enterprise. Most of these Industries or Utilities would be incapable of yielding a commercial profit; but they must nevertheless be owned and conducted by the State, and made to be self-sufficient as far as feasible.

The initial capital for these can be provided out of accumulated Reserves or borrowed funds, or the surplus of other successful public enterprise. All capital is, in the ultimate analysis, nothing but the surplus of production over consumption, which should be conserved in the form of various reserves, and kept ready mobilised, so as to be available for utilisation wherever and whenever needed for expanding and improving existing Industries, or starting new ones. It must be a distinctive and imperative feature of planned economy to facilitate the formation of such Reserves, and their utilisation as and when needed.

(b) Industries or activities which tend to become Monopolies, largely because of fiscal protection or other form of public aid given to them, should likewise be financed, as far as possible, by the State. Their working may be entrusted to a public corporation set up specially for the purpose, or kept directly in the hands of Government. Even if private enterprise is allowed to remain at all in such a field, it must be under clear public con-

trol to ensure that the long-range national interests are not violated at the altar of individualist greed.

The division of capital financing obligations as between the Central and Provincial, State or Local Governments, should follow the nature of the enterprise. If an enterprise is predominantly of a local or regional character, it must be financed and managed by the local or regional authority ; while if it is of an All-India nature, it must be owned and operated by some Central Authority.

Enterprises which are regional in location, but national in importance, e.g. mines, or Hydro-electric power works,—should be governed by a common policy, though ownership and conduct of each such enterprise may be left to local authorities or Government.

(c) Where Government is not able easily and readily to finance, out of its own resources, any major industry of national or vital importance, would be obliged to have recourse to private capital. Such private capital should not be left to do the entire financing, and so assume the sole control and management of such capital. Government, or some statutory public authority, specially appointed for that purpose, must be associated as partners with private enterprise in each such concern. Adequate powers of control and supervision, direction and control, should be reserved to Government, in addition to its exclusive concern to lay down the fundamental policy, even if such an enterprise is left in charge of private capital.

Provision must further be made in the partnership agreement for the eventual buying out by Government of the private partner's share, on such terms as may have been laid down in each such agreement ; and the right must be exercised after a given number of years.

During the currency of the Partnership Agreement, Government must retain the controlling voice in all questions of policy or general management of the enterprise. They must either hold a majority of shares, or at least hold proxies for a majority of shares necessary to take any important decision of policy.

(d) Any industries or services of relatively second-rate importance, e.g. Luxury Goods or Hotels, where private enterprise may, under the Plan, be left to provide all the necessary outlay for initial equipment, plant and machinery, as well as for working expenses,—adequate arrangement must be made for effective public supervision and control. This is necessary to guard against dissipation of the surplus, as well as excessive consumption of such commodities, services or utilities.

(e). Where no national interest of a vital character is involved, or where an industry or utility is not listed as among

key industries, public utilities, or social services, private capital may be permitted, subject to such powers of control and coordination reserved to Government as may be deemed indispensable in the interests of maintaining the integrity of the Plan. Any enterprise or activity, financed by private capital, and requiring for its commercial success fiscal protection or other aid from public funds or authority, should be required to submit periodical reports of its working, including its accounts and balance-sheets. It must accept and carry out all suggestions or directions that may be issued by the appropriate public authority as a result of the scrutiny of such reports, etc. It must agree to fix the maximum profits which can be distributed among Proprietors, not exceeding 10% per annum on paid up capital. Finally, it must provide model or standard conditions for its employees in conformity with the National Labour Code.

RESTRICTIONS ON FOREIGN CAPITAL

(f) In no case of any Key, Essential, or Mother Industry, or Industry concerned with National Defence, Public Utility, or Social Services ; or for exploiting the mineral, forest and other forms of natural wealth of this country, should foreign capital be allowed to be invested in any form.

(g) Any indigenous industry in which foreign capital has been invested should be made to forfeit any benefits or special consideration by way of Fiscal Protection, or financial or other aid of any kind.

(h) No foreign capital should be permitted to be invested,—whether in proprietary, partnership or joint stock concerns,—for any industry, enterprise, utility, or service in this country, without the previous sanction from Government, and subject to Licence specially issued in that behalf. The conditions of such Licence must, in the first instance, be laid down by the National Planning Authority, which shall be competent to revise these conditions from time to time, and to enforce the same by means of such machinery of inspectorates, special inquiries etc., as it considers proper and necessary.

(i) Foreign Capital, at present invested in any of the essential industries, or in the exploitation of the mineral, forest or other forms of natural wealth of this country, should be required to obtain a licence, and conform strictly to the terms and conditions laid down in the licence, regarding periodical reports, publication of accounts and balance-sheets, stipulation regarding limited dividends, and the like. At the earliest opportunity all such enterprises must be acquired by Government,—provincial or national,—as may seem proper in each case. Reasonable compensation may be given for such expropriation of stock, plant, machinery, buildings, furniture and fixtures but not

for goodwill. The Licence necessary for such enterprises must explicitly lay down this condition.

(j) No industry or enterprise, whose capital is provided by foreign financiers in any form or to any extent, should be allowed to camouflage itself as Indian Enterprise by adding the word "India" after their normal style and title.

Subject to these guiding principles, initial and working capital may be provided, from time to time, in such proportions by the Central, Provincial or State Government, Local Governing Bodies, or Statutory Corporations, as well as private individuals or corporations, as may be deemed appropriate.

DISTRIBUTION OF FINANCIAL RESOURCES AND OBLIGATIONS UNDER THE NEW CONSTITUTION

In view of impending constitutional changes of a fundamental character, the division of financial resources and obligations, as between Provincial (or State) and Central Governments, is difficult to lay down in advance. In general, however, it may be stated that industries, enterprises, utilities or services, of a National character, or coming, under the new Constitution, within the jurisdiction of the Union Government; or which are entrusted to that Government by specific agreement by any component units of the Union, should be financed principally, if not exclusively, by that Government.

On the other hand, any enterprise, utilities or services which are directly of local benefit, should likewise be financed by the Unit Government; or Local Bodies under it; or by special statutory bodies created for the purpose. If, between all these, the Unit Government is not able to finance the enterprise, on such terms and conditions as are in conformity with the principles laid down above, it may have recourse to the Union Government or to the ordinary Loan Market as may be found most economical in each case.

In specific cases of National importance coming within the Unit jurisdiction, the Central Government may make grants for undertaking or working any industry, enterprise, utility or service by a Provincial or State Government, on definite conditions. These conditions may include the right of control and supervision, of giving advice and instructions reserved to the Union Government. They must also reserve the power to inspect the books of accounts, and, from time to time, scrutinise the general working as well, so as to make suggestions for improving, or correcting any abuses in the actual operation. These must be carried out by the Provincial or State Governments concerned.

The policy of limiting profit in any enterprise, utility, or service, financed as regards initial capital by the Government

of a Unit, or of a Local Body, in association with any private enterprise, must be accepted and strictly adhered to.

FINANCING INSTITUTIONS ARE PUBLIC UTILITIES

All institutions providing capital finance,—namely Banks, wherever they function,—must be treated and dealt with as Public Utility Corporations. They should preferably be owned and operated by the State or any delegate of the State. Even if they or any of them continue to be under private enterprise, they must be placed by law under the rigid control and supervision of the Union Government. The same principle must also apply to the Instruments of Credits used by Banks and other financial institutions for providing fixed and working capital.

Practically all these ways for protection, encouragement or State aid to Industry have been accepted in one form or another by the present Government in their Statement of Industrial Policy issued in April 1945. The basic standpoint, however, from which these ways and means were considered and adopted by Government being different, they appear in every case to be somewhat halting; and inclined to leave much more room for individual enterprise than is compatible with or desirable in scientific national planning on a comprehensive scale.

PRESENT INDUSTRIAL POLICY

During the War, and because of its stress, the Government of India were forced to adopt a more vigorous and systematic policy of industrial development, to meet the urgent need for war supplies. In their Statement on Industrial Policy, they recognise expressly the handicap which the comparative backwardness of India in industrial development imposed, not only on this country but on all others where the War was then waging.

The principal objectives, however, that were laid down by Government for an intensive policy of industrialisation were :—

- (a) to increase the national wealth by the maximum exploitation of the country's resources,
- (b) to make the country better prepared for Defence.
- (c) to provide a high and stable level of employment for the available man-power of the country.

While recognising that a considerable portion of the known and available resources of this country in the shape of man-power and raw materials, remain unutilised in India itself, and the country remains consequently dependent on foreign imports for her own normal requirements in peace time; while aware also that there was in the country an uneven distribution of population as between Agriculture and other sources of producing new wealth, like Industry, the driving force of Government's new policy was really found, not in any desire for an all-round,

comprehensive, coordinated development of all the resources of the country, but rather in meeting the immediate needs and deficiencies that the War had revealed. In many cases, the Panels or Committees appointed by the Planning and other Departments did describe their work as part of post-war reconstruction. But the initial impetus of war-time needs gave a turn to their enquiries and coloured their recommendations, which could not emancipate themselves sufficiently to take a broad national view. Most of these Panels or Committees were dominated entirely by the vested interests of private profiteers ; while the ground was prepared for them by the Civilian Secretaries, who abhor all ways other than those sanctified and ennobled by usage and precedent ; who know of no vision of India except that which could be moulded into their own familiar pattern ; and who care for no ideals except to scoff at in the name of practicability.

Admitting that full scientific development of industry can provide additional employment, there is a limit beyond which the fullest development of industry will not be able to take off any considerable proportion of the population, which may be described as surplus on the soil, unless, side by side, all the other primary sources of production, like Agriculture, Forestry, Mining, and the like, are reorganised, rationalised, and developed. The mere emphasis on Industry,—and, at that, the Industries catering directly for War or Defence,—would not suffice to attain even the limited objective laid down in the Statement of Industrial Policy.

Nor would the increase in the volume of national wealth, from the maximum exploitation of the country's productive resources, result in a real betterment of the actual living conditions for the vast masses of the people, unless simultaneously attention is devoted radically to re-organising the Distribution System now prevailing. The obvious fallacy of thinking in terms of the per capita wealth, or average income, was scarcely understood by the official planners ; they have not grasped the patent fact of our existing economy, viz : that one-third of the wealth produced in the country is taken by 1% of the population ; another 32% is taken by a third of the population ; and the balance, 1/3rd of the wealth, is left to be enjoyed (?) by the remaining 2/3rds of the people. In other words, the actual income is not half the average income left to over two-thirds of the population. In such a system, Rationalisation of the Distribution System should come even before the improvement in production.

Concentrating attention, as Government did, under the impetus of the War, on Industrialisation with these limited objectives, it was impossible for them to attain the larger aims of a scientific National Plan. They can only be taken into account

if planning is for the normal daily life of the people, and not for a given emergency ; when it is on the comprehensive scale and with fuller objectives that the National Planning Committee had adopted.

At the outset of their venture, moreover, Government found constitutional obstacles, which in the intervening years have only been intensified. Under the Government of India Act, 1935, the development of Industries was a provincial subject. But the Central Government was entitled, by its own Legislation, to declare that particular Industries should be developed under Central Control in the interests of the country as a whole. No such Legislation has, in fact, been passed. Nevertheless, under war stress, it was felt that the industrial development of the country had actually been accelerated by the basic policy of the country as reflected in the Tariff Schedules, and other forms of assisting local industry, which Government had pursued in recent years. It was also realised that, if the Industries listed in the Statement of Policy were scientifically developed, they could only be so under Central control and a coordinated scheme. But the industries selected for this purpose clearly reflect the initial impetus of the War, under which this policy was adopted, though Defence Industries are not mentioned by name. Of the ordinary consumption goods, needed daily by the average citizen, only Textiles and perhaps Cement find a mention. Needless to say these were badly needed at the time for an efficient prosecution of the War.

This was due to the fact that even when Government had decided to "encourage and promote the rapid industrialisation of the country to the fullest extent possible", they selected only those industries which they held constituted the foundation of modern industrial life. They realised, indeed, that important as these industries were, they must form part of a balanced Plan ; only there was no real Plan.

Government, moreover, were primarily concerned with *Industrial Policy* as such as part of their Plan ; and not thinking so much of other items in National Development, which a comprehensive Plan of the type the National Planning Committee had in view would take account of. Thus, for instance, on the question of the extent to which the State should take direct part in Industrial Enterprise, they note the existing position, in which Ordnance Factories, some Public Utilities, and Railways, are State-owned and State-operated. These they would continue also under the new Policy enunciated in 1945.

*.INDUSTRIAL PANELS

In regard to another Key Industry for the generation and supply of Electric Power, under stress of War, Government had

also decided that it should be made a State Concern "as far as possible". But this limitation made the prospects of direct State enterprise anything but rosy.

Apart from these, private enterprise would be left practically free under this policy in the rest of the industrial field.

In so far as this may come under the domain of provincial functions under the new Constitution, the Central Government may find it difficult, in the absence of the necessary authority delegated to the Centre after negotiations and agreement with the Units concerned, to deal with the vital matter of an all-round economic development of the country. Leaving that question aside, and apart from the existing instances of public ownership and management of industrial concerns, they declared :

"Basic Industries of National Importance may be nationalised (i) provided adequate private capital is not forthcoming, and (ii) it is regarded as essential in the national interests to promote such industries. For the purpose of Government Policy, "basic industries" can be defined as including aircraft, automobiles and tractors, chemicals and dyes, iron and steel, prime movers, transport vehicles, electrical machinery, machine tools, electro-chemical and non-ferrous industries. It is contemplated also that Government may take over certain industries in which the tax element is much more prominent than profit, and it is necessary and convenient for the State to take over the industry. All other industries will be left to private enterprise under varying degrees of control. There would be no control except such as is required to ensure fair conditions for labour in the case of those industries catering for ordinary consu-

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- * i. Iron and Steel.
 - ii. Manufacture of Prime Movers.
 - iii. Automobiles and Tractors and Transport vehicles.
 - iv. Aircraft.
 - v. Ship-building and Marine Engineering.
 - vi. Electrical Machinery.
 - vii. Heavy Machinery, such as Textiles, • Sugar, • Paper, Mining, Cement and Chemical.
 - ✓ iii. Machine Tools.
 - ix. Heavy Chemicals and fine chemicals, chemical dyes, fertilisers and Pharmaceutical Drugs.
 - x. Electro-chemical Industry.
 - xi. Cotton & Woollen Textiles.
 - xii. Cement.
 - xiii. Power Alcohol.
 - xiv. Sugar.
 - xv. Motor and Aviation fuel.
 - xvi. Rubber manufacture.
 - xvii. • Non-Ferrous metals industry.
 - xviii. Electric power.
 - xix. Coal.
 - xx. Radio Engineering.

mers' demands, and subject to free competition, while, in the case of industries of a semi-monopolistic nature, or which control scarce natural resources, there may be a stricter control varying with the circumstances of each case."

This policy, announced in April 1945, but not yet formally adopted by the Interim Government, restricts the scope of State Enterprise, only to "basic industries" of National Importance; and, that too, on condition :—

- (a) that adequate private capital is not forthcoming, &
- (b) that the Industry in question is regarded as essential in national interests.

These two conditions can be easily used to defeat any real extension of State Industry. Private capital would really not be so shy in a regime of intensive Industrialisation under a National Government, in industries which are of a vital character for the progress of national economy. If the State announced its resolve to plan intensive Industrialisation with private enterprise, wherever there is chance of profit, capital will not be lacking, however much it may act the conquette. Its seeming "shyness" will be easily overcome by diverse ingenious forms of State aid or protection to industry. The field thus left open to private enterprise would in effect be not only much larger than is compatible with scientific national planning; it would be much more profitable than the sector kept open for the State. For the Ordnance Factories have no other market than the Defence Department; and so there is no chance of profit in that field in an age lacking in armaments race; and our equipment for that line scarcely adequate to third rate requirements. And Utilities and Services must be operated for the consumers' benefit, so that there also there will be not much room for surplus for the Exchequer to be used for other non-productive but necessary Services.

Such a distribution of available industrial enterprise would be needlessly burdensome and uneconomic. Under it the State would be condemned to take only the leavings of private enterprise; and bear all the burdens for the benefit of the latter. Planned industrialisation, moreover, as part of an all-round programme of national development, would be incapable of realising its principal objective, unless every sector of the national economy is carefully co-related, and every item therein scientifically integrated.

PUBLIC CONTROL AND PRIVATE ENTERPRISE

Government themselves realise this factor by admitting in that Statement that "in a planned economy, it is impossible to do without controls". Their conception of the "control", however, necessary for carrying out the Plan, is as limited as their desire for collective Enterprise, as, in the very next sentence, they

add :—" Such controls should be the very minimum required ".
The objects of the control that they propose to achieve are :—

- (a) to secure balanced investment in industry, agriculture, and essential services ;
- (b) to secure for industrial workers a fair wage, decent conditions of work and living, and a reasonable security of tenure ;
- (c) to prevent excessive profits for private capital ;
- (d) to ensure the quality of industrial products in the interests of internal and external markets ;
- (e) to avoid excessive concentration of assets in a limited class or a special community ;
- (f) to ensure the necessary technical training of personnel, and to extend the benefit of such technical training to minorities and other communities.

All these objectives presuppose or would permit an extensive scope to private enterprise in profitable industry, and the retention of sectors of nationally planned economy. Control can, however, be effective only when the entire economy is socialised. Its very basis and orientation must be radically altered. This means complete socialisation ; full authority reserved to Government, not only to say which industry is to be undertaken, but also where it is to be established, how accounts are to be kept ; what provision is to be made for Depreciation and Reserve ; and lay down the general policy of each enterprise as an integral part of an all-round national Plan relating not only to industries but also to the rest of the country's economy. It must be open to Government to say, when necessary, which enterprises are to be formed into National Trusts or Syndicates, and how they are to operate.

LIMITATION OF DIVIDENDS

An inevitable corollary of this policy, would, even if it permits private enterprise, be to limit dividends, since private enterprise and the profit motive, if allowed, must be definitely restricted ; and not suffered to divert the benefit from planned development. It would be unfair to load the State with all the burdensome or non-profitmaking enterprises, services or utilities ; and reserve the cream of such a comprehensive National Plan to the private profit-seeker. For the expansion of all the Services and Utilities,—including the maintenance of peace and tranquillity,—which would improve the physical and mental calibre of the workers, as also the general environment and conditions of work in the aggregate, would mean an ever-growing outlay, that the State would not be able to provide if it relies on taxation of private profits or incomes alone. For the individualist profiteer would devise a hundred ways to evade taxation. He

would thus be keeping a disproportionate share of the surplus to himself, without sharing it in an equitable measure with the rest of the community.

• The strongest argument in favour of substituting State Enterprise under planned development for the individualist enterprise of today is, that the burden as well as the benefit of an intensive programme of all-round growth would be equally shared. There would be no glaring contrasts in income or opportunity. It would, therefore, be necessary to substitute for the present revenues of Government, derived from taxation of all kinds, an ideally elastic source of public income, i.e. revenues derivable from an ever-expanding productive industry. Whatever the State receives through these sources of publicly owned and operated Utilities and Services will, it need hardly be added, be returned to the community in the shape of lowered charges to consumers ; or the improvement and expansion of those Services, Utilities and Amenities. This is apart from the aid to the entire production organisation of the country, which would further accelerate the improvement in the general standard of living. To achieve that it would need ever-increasing resources from other sources of producing new wealth. And so it is impossible to be content with the Statement of the Government Industrial Policy, summarised above, which would leave such vast scope to profit-seeking private enterprise, and reserve for the State only the more burden-causing Utilities, or Services.

• The National Planning Committee have not yet pronounced on this question its final view. The Chairman's note on the Congress Policy, issued at the outset of the Planning Committee's work, says :—

“ A question is raised, however, as to whether it is open to the Planning Committee to consider the establishment or encouragement of large scale industries, except such as may be considered key industries, in view of the general Congress policy in regard to industry. This Congress policy, as is well known, shows a strong bias towards the development of cottage industries, specially of hand-spinning and hand-weaving. It follows that the Congress would disapprove of any policy which came in the way of its development of cottage industries. But there appears to be nothing in the Congress resolutions against the starting or encouragement of large scale industries, provided this does not conflict with the natural development of village industries.

Since 1920, Congress has laid stress on hand-spinning and hand-weaving and that emphasis continues. In May 1929, the All India Congress Committee passed a resolution to the effect that “ in order to remove the poverty and

misery of the Indian people and to ameliorate the condition of the masses, it is essential to make revolutionary changes in the present economic and social structure of society and to remove the gross inequalities". This resolution indicates an approval of socialistic theories, but apart from this general approval and some further advances in subsequent resolutions, the Congress has not in any way accepted socialism.

The Congress policy is further stated, in a Resolution of that body passed at Karachi, in 1931,

"The State shall own or control key industries and services, mineral resources, railways, waterways, shipping and other means of public transport."

POLICY OF NATIONAL PLANNING COMMITTEE

And this was elaborated or emphasised in the proceedings of a Conference of the Chairmen and Secretaries of Sub-Committee, National Planning Committee, in the following paragraphs :—

"Public Utilities, it was also decided, should be owned by some organ of the State, such organ being either the Central Government, Provincial Government, or a Local Board. It was also possible to have something of the nature of the London Transport Board controlling such Public Utilities."

In regard to the other important and vital industries, which are not Key Industries, or Defence Industries, or Public Utilities, no special rule was laid down. But it was made clear that the very nature of planning required control in some measure. What this measure should be might vary with the industry in question.

As regards the agency in State-owned industries, it was suggested that, as a general rule, an autonomous Public Trust would be suitable, the nature of such Trust being varied in the case of different industries. Such a Trust would ensure public ownership and control, but would avoid the difficulties and inefficiency, which creep in from a democratic control. This suggestion was approved of by some members present, while others thought that no definite rule should be laid down and the sub-committees should be left free to make their own recommendations: It was also suggested that there might be cooperative ownership and control. These suggestions are being forwarded to the sub-committees for their consideration. It is open to them to make their own recommendations.

In regard to private industries aided or supported by the State, the measure of State control is likely to be greater

than in unaided industries. The State may appoint directors or representatives to see that the State Policy in regard to planning is carried out. Such representatives of the State Policy will not be supposed to interfere in the day to day administration of the Industry, but it will be their function to see that the industry is coordinated with the National Planning Scheme and the general policies of the State are being carried out by the industry. Any planning will involve a close scrutiny of the development of industry in all its branches and a periodical survey of the progress made. It will mean the training up of the technical staffs necessary for the further expansion of industry; and the State may require industries to train up such staffs."

A specific reference to the Committee concerns the correlation between Mechanised large-scale, modern industries, and cottage industries or handicrafts. It is a matter of grave concern in the National Planning of India that the accepted policy of the most considerable Political Party in the country inclines in favour of small-scale industry or handicraft. There is a separate Sub-Committee to deal with cottage industries or handicrafts which has, however, not yet reported. The coordination of the two in the same Plan is a matter which must be left to the National Planning Committee as a whole to provide.

COTTAGE INDUSTRIES

For those who accept the ideal of Mechanisation and Rationalisation of all productive organisation one hundred per cent, little scope will be found for the obsolete forms of production represented by handicrafts. They involve needless waste of labour, handicap the country in foreign trade, and condemn the adult worker to needless toil for a limited gain, and for a permanently low standard of living. But the dangers of industrialism, and the excessive concentration of new wealth produced by intensive industrialisation of the country, as experienced in western countries, have persuaded the most socially inclined minds to accept this uneconomic ideal. The apprehensions, however, which lead to this outlook are grounded in the belief that the existing distribution of wealth, and social stratification resulting therefrom, are divinely ordained institutions that human efforts cannot change. But the Laws of Distribution, as the classical economist was wont to say, are man-made, while the Laws of Production are those of nature. The former are, therefore, much more easy to amend or abrogate in accordance with our changed conception of social justice. Here, however, is a clash of ideals or ideologies which it would be futile to pursue further. We must be content with stating the problem, and leaving it to the National Planning Committee in full sessions to give it its authoritative lead, when it presents its own report.

LOCATION OF INDUSTRIES

Another matter that needs to be dealt with in this Introduction is the Location of Industries, both those now existing and those to be hereafter established under the Plan. The Sub-Committee, while giving its broad views on the subject, could not go into details which were not available. For assigning the Manufacturing Industries their proper place in the over-all National Plan, it is necessary to give some thought to this vital question, for social as well as strategical, economic, as well as political, reasons.

Ordinarily speaking, the location of an industry would be determined merely with reference to the availability of raw materials, skilled and unskilled labour ; market, power or fuel in the case of mechanised industry ; transport and communication facilities ; capital equipment, and indirect advantage, such as the presence of other connected or subsidiary industries in the same place. But these are not all the considerations that a country planning the entire economic life of the people should be content with in the matter of the location, distribution, or diffusion of Industries throughout the country. There are reasons of a social character, e.g. the risk of over-congestion of population in areas where industries are unduly concentrated, and the resultant dangers to the health and morals of the population in such areas, which must also be taken into account. All the modern problems of Town Planning and civic amenities where industries tend to be concentrated must be faced, as also the needless, unnatural antagonism between town and country. In a scientifically planned economy such antagonism ought not to have any place.

There are, again, dangers in times of War of such concentration of all industries in a few places, that cannot but be taken into account by a National Planning Authority for a country of the size of India. Bombing from air would be a normal phenomenon in a modern war ; and when that occurs, it would destroy almost the entire industrial power of the country, if the bulk of the country's industries are located in a few centres only. The country would be deprived of its war potential, and left to the tender mercies of such an enemy.

There is a still more important consideration operative even in normal times, that must affect the distribution or location of productive industries in the several parts of this country. Not all of them are equally endowed in the matter of the primary requisites of industry. Nor have all been equally aided by the enterprise of man in developing their sources of producing new wealth. And yet the ambition of all component units of the Union of India is to develop their local resources to the utmost

possible ; and so to provide the greatest volume of remunerative employment for its aggregate man-power.

Because, however, of the existing disparities in the degrees of industrial development as between the several parts, there are already noticeable signs of inter-provincial jealousies, which will only be intensified if an all-round Plan ignores,—or rather, perpetuates, these differences. Under present conditions it is a fact of our National Economy that some Provinces and States are industrially much more developed, quite out of proportion to the availability of raw materials, fuel or power supply, labour and market,—simply because of the accident of Transport and Communication facilities, individualist enterprise, or Governmental influence, in regard to which they were and are more advantageously situated. Other Provinces or Regions, on the other hand, have, notwithstanding all the primary requisites of raw materials, labour supply and market, lagged behind, for want of some of the other advantages mentioned above ; and also because of the uncoordinated, anarchic system of individual enterprise. In the days of that anarchic social order—if that be not a contradiction in terms,—this might be allowed to pass as inevitable, though undesirable. But with an over-all Plan for the whole country, holding as its principal objective the creation of a balanced economy all over the land, with the fullest possible utilisation and employment of all the available material resources and man-power on remunerative terms, it would be intolerable if the existing differences, inexplicable by some natural reasons, are allowed to perpetuate themselves. For then, inter-unit jealousies will be simply unavoidable. A National Authority, planning for the whole country, cannot suffer this. It must accordingly take into full account the needs and possibilities for balanced economy in the country as a whole, in laying out the final recommendations on this matter.

• Even economic reasons, properly considered, would not advise excessive concentration in a few places only, leaving the bulk of the country practically undeveloped or backward. At the present time, less than a dozen places in India,—Bombay, Calcutta, Cawnpore, Madras, Karachi, Lahore, Delhi, Sholapur and Ahmedabad,—concentrate ninety percent. of the country's modern industrial enterprise ; while the rest remains almost entirely agricultural and dependent on such primary resources. The result is a wide variation in the standard of living, the efficiency of production, and the amenities of life.

Mechanisation and rationalisation of Agriculture, which, of course, would be part of an all-round plan, may be taken to convert Agriculture also into Industry, increasing the yield per unit, and improving the income of those engaged in it. And if to that is added the establishment and growth of subsidiary or processing

industries directly dependent upon Agriculture, Forestry or Mining, the problem of locating new industries or expanding existing ones, would not be so complicated. But it would take long to reorganise and recondition Agriculture and its associated, subsidiary or processing industries to the extent required in the Plan ; suitable or promising new industries for given regions cannot be held up until Agriculture is reorganised, rationalised, and mechanised. Factors other than the immediate economies available for each industry, or each industrial establishment, will have to be taken into account before finally determining the location of particular industries in the several parts of the country.

REGIONAL DEVELOPMENT.

It is not possible in a general outline like the one attempted in this Report, as supplemented in this Introduction, to indicate, even broadly, the centres or regions in which new industries would be possible to locate, or existing ones to develop. The Economic Advisor to the Government of India in 1945 laid out, as a basis for general discussion, certain lines for the location of some fifteen selected industries of major importance, which, it is not possible to examine critically in this Introduction. Nor is it necessary to do so, as the Government of India are not in any way bound by the observations in that document. The inference, also, drawn in some quarters that there is to be some sort of a differentiation between British India and the Indian States in regard to the establishment of new Industries and expansion of existing ones ought to have no justification in the future national policy. That implies as if British India has some sort of priority in such matters, which it would be morally an offence for the States in any way to invade or question. The very distinction between these two is unnatural and indefensible. It is purely a British creation, which it was the unwritten policy of that Government to emphasise when it suited their own ends, and soft-pedal when it did not. At the present juncture this aspect of British Policy makes itself manifest in a variety of ways, not all of which are mutually consistent. It is to be hoped, however, that when an authoritative and truly national body, like the National Planning Committee, takes up and decides such matters, none of these sophistries of unconscious Imperialism will be allowed to have any influence, while attending to the legitimate claims and just needs of every region, part, or corner of the country, irrespective of the accidents of jurisdiction.

INTERIM REPORT OF THE MANUFACTURING INDUSTRIES SUB-COMMITTEE

1. *Personnel :—*

The Manufacturing Industries sub-committee was appointed by the National Planning Committee to investigate and report upon all industries which may properly be termed manufacturing industries, i.e. all those industries in which raw or semi-finished material is turned into finished product, leaving aside chemical, electrical, engineering and mechanical industries.

The original personnel of the sub-committee, as appointed by the National Planning Committee, was as follows :—

Shri Ambalal Sarabhai, (Chairman),
Dr. Nazir Ahmad, (Secretary),
Prof. K. T. Shah,
Shri D. L. Narasimha Raju,
Shri B. Viswanath,
Shri Shanti Prasad Jain,
Sardar Bahadur Indra Singh,
Shri Kasturbhai Lalbhai,
Shri Manu Subedar,
The Hon'ble Mr. Shuaib Qureshi,
Shri M. C. Ghia,
Shri N. N. Rakshit, and
Sir A. R. Dalal.

The sub-committee suffered a loss in the death of Mr. Narasimha Raju, one of its members. Of the rest, Sir A. R. Dalal expressed his inability to serve on this sub-committee, while, at a later date, Dr. Suresh Chandra Banerjee was appointed by the Labour sub-committee as their delegate on the Manufacturing Industries sub-committee to assist and help in the consideration of such problems as are common to both the sub-committees. Unfortunately, he was not able to attend any meeting of the sub-committee. We should also like to mention that shortly before his lamented death, Mr. P. N. Mathur prepared a valuable note for the benefit of the sub-committee, and we would like to place on record our deep appreciation of the service he rendered, in a selfless spirit, in spite of his fatal illness.

2. *List of Industries :*

As will be easily realised, a very large number of industries fall in the group of manufacturing industries. Accordingly, the first task which the sub-committee set to itself was the preparation of as complete a list as possible of these industries. This list was prepared, and in order to facilitate further discussion, the various industries were classified under different major heads in such a way that the industries falling under each head were

more or less related to one another. Thus, one head dealt with the household articles, the other with glass manufactures, the third with leather manufactures, the fourth with textiles, and so on. The list, as finally approved by the sub-committee is given in Appendix I. It is not assumed that this list is complete in all respects, but an effort has been made to ensure that no major manufacturing industry of any appreciable magnitude is left out of consideration.

3. *Plan of Work :*

(a) *Collaborators :*

As mentioned above, the sub-committee realised, at an early stage, that it had to deal with a very large number of industries, many of which required expert knowledge for a satisfactory examination and report. Two courses were open to the sub-committee. One was to co-opt a large number of gentlemen, who possessed special knowledge of the different industries; while the other was to approach a large number of gentlemen with the request that they may kindly act as collaborators by writing memoranda on one or more industries, which may be considered by the sub-committee. It was felt that the first method, if followed, would make the personnel of the sub-committee large, and its work cumbersome; while the expense of paying the travelling allowance of all the original and the co-opted members would impose a heavy burden upon the financial resources of the National Planning Committee. Therefore, after due consideration of this point, the sub-committee decided to adopt the second alternative, and to request a number of gentlemen kindly to act as collaborators. Accordingly a list of these collaborators was prepared, and each collaborator was asked to report on one or more industries, on which he was reported to possess expert knowledge. The names of these collaborators, as well as the distribution of industries among them are given in Appendix II.

(b) *Special Questionnaires :*

On starting the work it was found that most of the questions in the two Questionnaires which had been already issued by the National Planning Committee were of a general nature, and that the replies received from the Provincial Governments, Universities, industrial organisations, etc. were not likely to be of very great help in the special work which the Manufacturing Industries sub-committee had in mind. Accordingly, two short questionnaires, bearing closely upon the manufacturing industries, were prepared, and these were sent to the collaborators, so that they could prepare their memoranda on the lines indicated in these questionnaires. These two questionnaires are given in Appendix III.

(c) *Response of Collaborators :*

It may be stated here that of the 57 collaborators who were addressed in respect of these industries, only 22 were kind enough to prepare and submit memoranda up to the date of preparing this report, 2 have acknowledged the letters and promised to prepare the memoranda, but these have not yet been received by the sub-committee inspite of reminders, whilst 29 gentlemen who were addressed in the matter did not even acknowledge the letters issued to them. The whole position regarding the response of the collaborators is summarised and given in Appendix IV. • The failure on the part of some gentlemen to acknowledge the letters, and on the part of the others to send their memoranda in time, has been one of the main reasons for the delay in preparing the report of this sub-committee.

(d) *Appointment of a Technical Assistant :*

As it was realised that no useful purpose would be served by waiting any longer in order to obtain the required information by correspondence, it was decided to appoint a Technical Assistant for a short period of time and to send him round to the various industrial centres to collect this information. It should be emphasised here that the value of the report of the Manufacturing Industries sub-committee, from the point of giving guidance for the establishment of various industries in the country, depends upon the completeness and the authenticity of data contained therein, and therefore every effort should be made to make it as complete and reliable as possible.

(e) *Suitability of different Provinces and States for Industries :*

The question of the suitable location of new industries and the development of the older industries in the existing areas also engaged the attention of the Manufacturing Industries sub-committee at an early stage of its work. It was felt that in this connection it would be useful to enquire from the various Provincial Governments and States as to which of the industries falling under the manufacturing industries group were specially suited for development or extension in their areas. Accordingly, the list of these industries was sent round to all the Provincial Governments, and the collaborating States, with the request that after taking into consideration the factors of raw material, labour, market, finance, etc. they may kindly indicate those industries for which there was special scope for development or extension in their respective areas. Some of the governments, like the Punjab Government, addressed in this matter took the trouble of preparing elaborate and useful notes, while the other governments indicated only in a general way a fairly large number of industries for which they thought there was scope for development or extension in their areas. It would have been far

more useful from the point of view of the work of the sub-committee if each Government addressed in this matter had given special thought to the various factors which go to the building up of a particular industry, and had indicated only a small number of industries for which there was special scope of development and extension in their area. However, such information as has been collected as a result of this enquiry, will be summarised, and will be submitted in the second part of this report.

(f) *Customs Tariffs & Labour Legislation in the States :*

It was also felt, at an early stage of the work of the sub-committee, that one of the factors which may influence the establishment of industries in the Indian States would be the custom regulations and labour laws prevailing in these States. Accordingly, the States were requested to give information on these two points, and the replies received from them will be summarised and presented in the second part of this report.

(g) *Statistical data with regard to demand in the country and Joint Stock Companies :*

One of the important considerations determining the establishment of a new or the expansion of an old industry is the actual or potential demand in the country of the manufactured article. Therefore, the exact knowledge of the consumption of the various articles falling under the manufacturing industries group would be of very great help in laying out the future plan of the industrial development of the country. Unfortunately, with the present lacunae in our statistical knowledge it is not always possible to obtain this information with any degree of accuracy except in the case of a few articles. From this point of view, the various articles may be divided into three classes, namely :

- (i) those which are almost completely imported from abroad ;
- (ii) those which are partly manufactured in India and partly imported from abroad ; and
- (iii) those which are almost completely manufactured in India.

As regards (i) useful information is given in the Government publications, especially in the volume entitled "Sea-borne Trade of India". It must be pointed out here that in many cases several articles are lumped together with the result that it is not always possible to find out the import of each important article. On the other hand valuable funds and space are wasted in giving information regarding such articles as are imported in small

quantities. The tables given in this publication require re-casting at an early date so that in those cases for which the imports are relatively small, say, less than Rs. one lakh a year, they may be omitted, while in other cases, where the imports are large but the articles have been lumped together, they should be separated and the information furnished in respect of each article. This will considerably enhance the usefulness of these tables without, it is hoped, increasing the work of the Department of Commercial Intelligence and Statistical information. In the case of articles falling under the sub-group (i) the information so far as it relates to the imported articles is available, subject to the deficiencies mentioned above, while only in a few cases information regarding the production in India is known. Similarly in the case of articles falling under sub-group (iii) except in the case of sugar, steel, and textiles, very little reliable information is available in regard to the articles which are almost completely manufactured in India. Thus, in the absence of a comprehensive census of industrial production, such as is carried out in the U. S. A. the sub-committee could fall back only upon the figures of imports as its guide for ascertaining the demand in the country. It is admitted that this method is very defective, but it is the only one permissible under the limitations referred to above. It was therefore decided to prepare tables showing the annual imports of the various articles falling under the Manufacturing Industries group during the last five years so that they may give information not only with regard to the average import of each article, but also with respect to the increase or decrease in its quantity and value during the last five years. These tables are given in Appendix V. It was further thought that the tables giving the latest information with regard to the authorised capital, subscribed capital, etc. of the Joint Stock Companies established in India would also be found useful by the readers of this report, and accordingly these tables were prepared and are given in Appendix VI.

Meetings of the sub-committee :

Owing to the large distances separating some of the members and their preoccupation with other businesses, it was not possible to hold more than four *formal* meetings of the sub-committee, though several informal conferences between the ~~Chairman~~ and Secretary of the sub-committee and the Hon. Genl. Secretary of the National Planning Committee were held. Even so, some of the members of the sub-committee did not find it possible either to attend the meetings of the sub-committee or to give the sub-committee the benefit of their views in the form of memoranda, notes, etc. Apart from the chairman and secretary, who naturally had to do the major part of the work of the sub-committee, the position with regard to the other members in

respect of their attending meetings or sub-mission of notes, memoranda, etc. is shown below :

Total number of meetings held : 5
Total number of members : 12.

1st meeting : 30th August 1939, 11-30 a.m. (7 members attended)

2nd meeting : 8th Feb. 1940, 5 p.m. (3 members attended)

3rd meeting : 13th March 1940, 1 p.m. (5 members attended)

" (contd.): 14th March 1940, 5 p.m. (6 members attended)

4th meeting : 8th April 1940, 3 p.m. (6 members attended)

" (contd.) : 9th April 1940, 9 a.m. (5 members attended)

5th meeting : 25th April 1940, 4-45 p.m. (5 members attended)

Name of Member	No. of meetings attended.	Memoranda sent for consideration :
1. Ambalal Sarabhai	all the five	
2. Nazir Ahmad	all the five	
3. Prof. K. T. Shah	four	
4. Kasturbhai Lal-bhai	all the five	Notes on cotton & starch industry.
5. Manu Subedar	two	Amendments to resolutions.
6. M. C. Ghia	four	Amendments to resolutions.
7. Shualb Qureshi	one	
8. B. Viswanath	one	
9. Shanti Prasad Jain	none	
10. Sardar Indra Singh	none	Opinions on issues raised on general policy, and amendments to resolutions.
11. N. N. Rakshit	none	
12. S. C. Banerjee (Labour)	none	

The minutes of the five formal meetings are reproduced in Appendix VII.

4. Scope of the Report

Although a large number of gentlemen possessing expert knowledge of industries were requested to act as collaborators, it was realised that even this method, which was most economical and convenient under the circumstances, would not enable the

sub-committee to make a thorough and exhaustive report on each and every industry falling within the manufacturing industries group. For this purpose, it would have been necessary for the sub-committee, collectively or in small groups, to make extensive tours in the country, to examine a large number of factories on their sites, to interrogate a very large number of people connected with the different industries in order to elucidate doubtful or controversial matters, to examine the statistical data relating to capital, working costs, labour conditions, raw materials, machinery, magnitude and trend of the market, etc. etc., in short to undertake work of a nature which is ordinarily done by a Commission or Tariff Board for each industry. In view of the fact that most of the members of the sub-committee had other occupations which absorbed the major portion of their time, and from which they could not get away for more than a few days, such a course was not possible. It was, therefore, realised that the report of the sub-committee, even with the help of the collaborators, could at best be of a general character, while the work of making detailed reports on the different industries, taking into consideration all the various factors involved in the establishment and economic running of an industry, must be left either to the Industrial Commission which is planned to be set up later on, or to some such similar body. It was further realised that this general report could very well be divided into two parts, one part to deal with the general terms of reference which are common to the Industries Group of sub-committees, as given on pages 89-90 of the hand-book issued by the National Planning Committee, while the other part of the report would deal with the reports and notes upon individual industries.

As mentioned above, Part I of this report will contain the resolutions passed by the Manufacturing Industries sub-committee on the General Terms of Reference mentioned above, together with amplifying notes in which the background of these resolutions is discussed in greater detail. Part II of the report will deal with the reports on individual industries. In this work, the sub-committee will naturally depend upon the active collaboration which it has received from its numerous collaborators, or the information which it has been able to gather with the help of the staff employed either by the National Planning Committee, ~~or by~~ the technical assistant to whom reference has been made above. Where such collaboration or information was not forthcoming, no notes on individual industries will be submitted.

5. Resolution of the National Planning Committee on Licensing, and list of Defence and Key Industries and Public Utilities :

Before presenting Part I of the report to the National Planning Committee, there are two more aspects of a general nature

which must be considered here. The first one relates to a resolution of the National Planning Committee bearing upon the manufacturing industries group. This resolution is as follows :

“ This Committee is of the opinion that no new factory should be allowed to be established and no existing factory should be allowed to be extended or to change control without the previous permission in writing of the Provincial Government. In granting such permission the Provincial Government should take into consideration such factors as desirability of location of industries in a well distributed manner over the entire province, prevention of monopolies, discouragement of the establishment of uneconomic units, avoidance of over-production and general economic interest of the province and the country. The various provincial governments should secure for themselves requisite powers for the purpose, if necessary, by undertaking suitable legislation.”

Furthermore, as some of the resolutions given in Part I of this report deal with defence industries, key industries and public utilities, it is relevant to reproduce the list of these industries as decided upon by the National Planning Committee. This list is as follows :—

Defence Industries :

1. Fire arms (land, air and marine) and their parts.
2. Munitions, cartridges, explosives, shells, torpedoes, etc.
3. Tanks and armoured cars and other forms of mechanical equipment especially designed for military purposes.
4. Warships of all types including submarines.
5. Military Air-Craft of all kinds.
6. Gases for warfare and gas-masks.

Note :—Warships and military air-craft can also be made in ordinary peace time establishments.

Key Industries :

1. Power—Hydro and thermal (generator).
2. Fuel, coal and fuel wood, mineral oil, power alcohol, natural gases.
3. Metals, ferrous and important non-ferrous, including winning of ore for them.
4. Industries for the making of machine tools.
5. Industries for the making of machinery and machinery parts.
6. Heavy engineering industries for the building of ships, locomotives, waggons, automobiles, air-craft and the like (vital).

7. Instruments and apparatus,—commercial, industrial and scientific. (standards)
8. Chemicals, heavy chemicals, fine chemicals including dyes (some vital), fertilisers and refractories.

Public Utilities :

1. Distribution of electricity, gas and other forms of energy.
2. Public transport and communication services.
3. Water supply.
4. Sanitation.

6. *Large scale and Cottage Industries :*

The second aspect to which reference has been made above relates to the position of the manufacturing industries vis-a-vis the cottage industries. It is evident, even from a cursory examination of the question, that several of the articles, which fall within the manufacturing industrial group, can be prepared either on a large scale or on a small or cottage scale. In some countries like Switzerland, Sweden, Japan, etc. a state of equilibrium appears to have been reached between the large scale and the cottage industries, as a result of which the two forms of production, instead of remaining in a state of perpetual tension and conflict, supplement one another to the mutual benefit of both. In India, however, the position is far from clear at present. One school of thought lays greater emphasis on the development of the large scale industries on grounds of higher efficiency, low costs, uniformity of products, etc., while another school of thought lays greater emphasis upon the development of cottage industries for humanitarian and social reasons. The Manufacturing Industries Sub-Committee tried, at the outset, to enlist the support of the All India Village Industries Association, so as to reach a common agreement with regard to the distribution of industries between large scale and cottage scale, but did not meet with any success. Left to itself, the Manufacturing Industries Sub-Committee had to consider the question as to what size of a particular industry may be regarded as cottage or small scale industry, as against large scale industry. After giving due thought to this question, it decided to look upon it from a purely objective point of view, and agreed upon the following definition of manufacturing industry :

“A manufacturing industry should (a) come under the Factories Act, (b) use at least 10 B. H. P. motor or engine in the aggregate, and (c) employ labour to whom a fixed return in cash or kind is made, or show any one or more of these characteristics.”

The relative advantages of large scale versus cottage industries will be discussed in the amplifying note under the proper head.

We shall now give in Appendix VIII the resolutions finally adopted by the Manufacturing Industries sub-committee on the General Terms of Reference for the Industries Group of sub-committees.

Acknowledgements :

We would like to place on record our deep sense of gratitude and appreciation to the Provincial and Indian States Governments and our collaborators, who have co-operated with us by preparing and sending us reports, memoranda, notes, etc. without which it would have been manifestly impossible for us to make any progress. We would also like to offer our thanks to the Chairman, Hon. Gen. Secretary, Jt. Secretaries and the staff of the National Planning Committee for their valuable support and help in our work.

Bombay,
18th April, 1940.

NAZIR AHMAD.

Appendix I.

LIST OF MANUFACTURING INDUSTRIES

.I. HOUSEHOLD ARTICLES.

.A. HAIR, FIBRE, COIR, etc.

Aryan Brush Mfg., Co.	}	(a) Hair Belting for Machinery,
		(b) Belting of other materials (including coir [†]),
		(c) Bristles and Fibres for brushes,
		(d) Paint and Varnish Brushes,
		(e) Hair of all kinds,
		(f) Manufactures of hair (other than toilet requisites),
Director of Industries, Cochin. ..	}	(g) Other brushes (excluding toilet),
		(h) Brooms,
		(i) Cordage (ropes),
		(j) Coir,
		(k) Mats and matting except coir.

B. WOOD.

Director of Inds., Mysore. Messrs. Kamdar Ltd. .. Dr. of Inds., Punjab .. Dr. of Inds., Mysore. ..	}	(a) Canes etc.,
		(b) Furniture,
		(c) Paraffin Wax,
		(d) Wood Polish.
		(e) Ply Wood.

C. METAL.

Dr. of Inds. U. P. .. Dr. of Industries Bengal.	}	(a) Cutlery :—Pruning Knives & other kinds,
		(b) Hardware (excluding cutlery & electroplated ware),
		(i) buckets of tinned or galvanised iron,
		(ii) domestic hardware, other than enamelled iron-ware,
B. H. University, Benares Messrs. Tata Sons & Co. Ltd.	}	(iii) enamelled ironware,
		(iv) implements & tools other than agricultural implements and machine tools,

Kirloskar Bros., Satara.	}	(v) lamps :—metal, parts of lamp other than glass.
Godrej & Boyce Mfg., Co. Kirloskar Bros., Satara.		(vi) safes and strong boxes of metals, (vii) stoves, (viii) other sorts.

D. EARTHEN AND CHINAWARE ETC.

Dr. of Indus. Gwalior..	}	(a) French Chalk,
Lala Sri Ram, Delhi. ..		(b) Earthenware, other than sanitary,
		(c) Porcelain ware other than electrical.

E. MATCHES, SAFETY AND OTHER SORTS.

G. H. A. Matcheswalla.

F. CLOCKS & WATCHES AND PARTS THEREOF

Vallabhdas Ranchoddas.

II. TEXTILES & RELATED INDUSTRIES.

Mr. M. C. Ghia. ..	}	A. Cotton Belting for machinery,
Dr. of Inds. U. P. ..		B. Bobbins,
Dr. of Inds. Travancore.		C. China Clay,
Mr. P. R. Morarjee. ..		D. Oil Cloth and floor cloth,
Mr. Kasturbhai Lalbhai.		E. Starch, Dextrine and Farina, F. Tallow and Stearine; and other animal fats and greases.

G. TEXTILES.

Mr. Kasturbhai Lalbhai	}	i. Cotton:—Fine twist & yarn, Grey white, coloured, mercerised. Piecegoods, grey, white, coloured, printed or dyed. Umbrella cloth.
Mr. Nadkarni, Calico Mills		Lace and net. Sewing or darning thread.

		ii. Flax, raw and manufactured.
		iii. Haberdashery and millinery.
Mr. B. M. Birla. ..		iv. Silk, raw and manufactured.
Dr. of Inds. Mysore. ..		v. Wool, raw and manufactured.
Dr. of Inds. U. P. ..		vi. Artificial silk, yarn, hosiery & piecegoods.
Mr. S. Ganga Raju ..		vii. Staple Fibre & yarns.
Mr. S. Ganga Raju ..		viii. Water-proofing.
Bengal Waterproofing Co.		

III. TOILET ARTICLES.

Aryan Brush Co. ..		A. Toilet brushes.
Dayalbagh.		B. Buttons of all sorts:—metal & non-metal.
Narotamdas Bhau & Co.		C. Jewellery (excluding imitation & precious stones).
Bengal Chemicals Ltd.		D. Essential Oils.
A. K. Menon, Calicut.		E. Non-essential oils.
		F. Perfumery.
Mr. Narielwala ..		G. Soaps.
Mr. Narielwala ..		H. Toilet requisites.

IV. GLASS ARTICLES.

Dr. of Inds. U. P. ..		A. Glass & glassware :
-do-		1. Bangles.
-do-		2. Beads and false pearls.
-do-		3. Bottles and phials.
		4. Funnels, globes and glass parts of lamps.
		5. Scientific glassware.
		6. Sheet and plate.
		7. Table ware (including decanters, tumblers, etc.)
		8. other glassware.
Dr. of Inds. U. P.		B. Lamps : glass, parts of lamp other than glass.
-do-		C. Instruments, apparatus & appliances and parts thereof.

Bengal National Engineering College. ..	}	1. Electric lamps and parts thereof, electric glow lamps,
		2. gas filled electric bulbs,
		3. vacuum electric bulbs, .
		4. electric bulbs for automobiles,
		5. electric bulbs for torches.
		6. electric bulbs of other sorts,
		7. parts and accessories of electric lamps, batteries for flash, and for others.
		8. Optical.

V. PROVISIONS.

Bengal Chemicals Ltd.	}	A. Saffron, real (agric.), artificial.
Dr. of Inds., Madras. ..		B. Gelatine.
-do-	}	C. Fish oils.
Mr. R. C. Srivatsava ..		D. Sugar.
Dr. of Inds., Assam. ..	}	E. Tea & Coffee, cocoa and substitutes.
-do-		F. Tobacco: manufactured—Madras.
Golden Tobacco Co. ..	}	Hyderabad manufactured (cigars, cigarettes, tobacco for pipes and cigarettes, and other sorts.)
Wright & Co.		G. Biscuits and cakes, Confectionery and sweets.
Parle Products ..	}	(Prepared foods (except milk products).)
Harinath Gopinath. ..		H. Other Provisions.
Tata Ind. Home. ..		
M/s. Shoorji Valiabhdas		

VI. LEATHER MANUFACTURES.

Mr. Misbah.	}	A. Leather Belting for machinery.
		B. Boots, Shoes and Saddlery.
Divide between U.P. and Punjab.	}	C. Barks for tanning.
		D. Cochineal.
		E. Cutch and gambler.
		F. Leather manufactures (excluding boots and shoes).
		G. Leather polish

VII. RUBBER MANUFACTURES.

- | | | |
|--|---|---|
| Dir. of Industries Travancore & Bengal. .. | } | A. Pneumatic Motor Covers. |
| | | B. Pneumatic Motor tubes. |
| | | C. Pneumatic Motor Cycle Covers. |
| | | D. Pneumatic Motor Cycle tubes. |
| | | E. Pneumatic Cycle covers. |
| | | F. Pneumatic Cycle tubes. |
| | | G. Solid Rubber tyres for motor vehicles. |
| Mr. Jasdanwalla. .. | } | I. Boots :—rubber soled, and all rubber. |
| | | J. Medical and Hygenic Articles. |

VIII. STATIONERY.

- | | | |
|---------------------------------------|---|---|
| Lucknow School of Arts & Craft. | } | A. Glue. |
| | | B. Paints and Painters' material and drawing material. |
| Mr. S. P. Jain. | } | C. Paper and pasteboard.
(a) 1. Packing & wrapping paper, Kraft, including imitation kraft, Brown wrapping & other sorts, Coloured machine glazed pressings Manilla, machine glazed or unglazed, sulphite envelopes, Fancy, including embossed paper, Oiled, waxed and other waterproof wrapping, and other sorts. |
| | | 2. Writing paper and envelopes, aurelaid or wove and ledger, Cream, Other sorts of writing paper, writing pads, boxed stationery. |
| Dr. of Indus. Hyderabad | } | |
| Mr. S. P. Jain. | } | 3. Blotting paper. |
| | | 4. Other kinds of paper. |

Mr. Shuaib Qureshi. ..	}	(b) Pasteboard, millboard & cardboard. 1. Strawboard. 2. Other kinds. 3. Manufactures of pasteboard.
Dayal Bagh.		(c) Paper making materials. 1. Pulp of wood. 2. Bag and other materials.
Laxmi Art Press. ..		(d) Pens, Pencils & Fountain pens. D. Ink for printing & lithography. E. Playing cards.

IX. OFFICE APPLIANCES.

Bombay Stationery Mart	}	Duplicators, Punching machines, stamps, Ink pads, etc.
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X. PLASTICS.

Dr. of Lac Institute, Ranchi.	}	A. Made from Shellac and shellac powders.
India Moulding Co., ..		B. Made from synthetic products of Casein, Formaldehyde, Urea, etc.
Bake-o-Brass Ltd., ..		
Bestolite Moulding Co.		

XI. MISCELLANEOUS.

Mr. Dharamsey Khatau	}	A. Asbestos, Manufactures : asbestos packing, sheets, slates, etc. of asbestos cement, other manufactures.
Dr. of Inds. Hyderabad.		B. Cork. C. Fireworks. D. Articles made of horns.
		E. Ivory (manufactured & un-manufactured). F. Sticks and whips. G. Umbrella and umbrella fittings.
Dr. of Inds., Mysore. Dr. of Inds., U. P. Dr. of Inds., Punjab ..	}	H. Wax of all kinds, other than paraffin wax (including candles). J. Other sorts of games & sports.

Appendix II.

<i>Name of Collaborator :</i>	<i>Names of Industries assigned :</i>
	} Hair belting for machinery. Belting of other materials (including coir).
1. Aryan Brush Mfg. Co.	} Bristles and Fibres for brushes, Paint and Varnish Brushes, Hair of all kinds, Manufactures of hair (other than toilet requisites). Toilet brushes. Brushes (excluding toilet).
2. Dr. of Inds., Cochin.	} Brooms, Cordage (ropes), Coir. } Mats and matting except coir.
3. Dr. of Inds., Mysore.	} Canes, etc., Wood Polish. } Silk, raw and manufactured. } Wax of all kinds.
4. Messrs. Kamdar Ltd.	} Furniture. } Paraffin Wax. Resin and Turpentine. Barks for tanning. Cochineal.
5. Dr. of Inds., Punjab.	} Cutch and gambier. } Leather manufactures (excluding boots and shoes). Leather polish. Games and sporting materials. Cutlery :—Pruning knives & other kinds. Bobbins. Wool, raw and manufactured.
6. Director of Inds., U.P.	} Glass and glassware (bangles, beads and false pearls, bottles and phials). } Lamps—glass, parts of lamp other than glass. } Toys.

<i>Name of Collaborator :</i>	<i>Names of Industries assigned :</i>
	} Hardware (excluding cutlery and electroplated ware). Buckets of tinned or galvanised iron. Domestic hardware, other than enamelled ware. Rubber Manufactures:— pneumatic motor covers, pneumatic motor tubes. pneumatic motor cycle covers & tubes. pneumatic cycle covers and tubes, Solid rubber tyres for motor vehicles. Other manufactures except apparel.
7. Dr. of Inds., Bengal.	}
8. Benares Hindu University.	} Enamelled Ironware. }
9. Tata Sons & Co. Ltd.	Implements and tools other than agricultural implements and machine tools.
10. Kirloskar Bros., Satara.	{ Lamps—metal, parts of lamp other than glass. { Stoves.
11. Godrej and Boyce Mfg. Co.	} Safes and strong boxes of metals.
12. Dr. of Inds., Gwallior.	Earthenware, other than sanitary Porcelain ware other than electrical.
13. Lala Sri Ram.	
14. G. H. A. Matches-wallā.	Matches, safety and other sorts.
15. Vallabhdas Ranchoddas.	Clocks, watches and parts thereof.
16. M. C. Ghia.	Cotton belting for machinery. Healds and Reeds.

<i>Name of Collaborator :</i>	<i>Names of Industries assigned :</i>
	China Clay.
	Rubber Manufactures :—
	Pneumatic motor covers and tubes,
	" motor cycle covers & tubes,
	" cycle covers and tubes,
17. Dr. of Inds., Travancore.	Solid rubber tyres for motor vehicles.
	Other manufactures, except apparel.
	Ivory (manufactured and unmanufactured).
18. P. R. Morarjee.	Oil cloth and floor cloth.
	Starch, dextrine and farina.
19. Kasturbhai Lalbhai.	Cotton—fine twist & yarn, gray, white, coloured, mercerised, piecegoods, gray, white, coloured, printed or dyed, umbrella cloth.
20. Nadkarni, Calico Mills.	Lace and net.
	Sewing or darning thread.
21. B. M. Birla.	Haberdashery and millinery.
	Newsprint—paper for newspaper.
22. Sardesai Bros. Ltd.	Tallow and Stearine.
23. S. Ganga Raju.	Artificial silk, yarn, piecegoods & hosiery.
	Staple Fibre and yarns.
24. Bengal Waterproofing Co.	Waterproofing.
	Buttons of all sorts:—metal & non-metal.
25. Dayalbagh.	Paper making materials—pulp of wood, bag and other materials.
26. Narotamdas Bhau & Co.	Jewellery (excluding imitation and precious stones).
27. Bengal Chemicals, Ltd.	Essential oils.
	Saffron, real (agric.), artificial.
28. A. K. Menon, Calicut.	Essential and non-essential oils.

<i>Name of Collaborator :</i>	<i>Names of Industries assigned :</i>
29. P. A. Narielwalla.	Soaps. Toilet requisites.
30. Bengal National Engineering College.	Instruments, apparatus & appliances and parts thereof: 1. Electric lamps and parts thereof, electric glow lamps. 2. Gas filled electric bulbs. 3. Vacuum electric bulbs. 4. Electric bulbs for automobiles. 5. Electric bulbs for torches. 6. Electric bulbs of other sorts. 7. Parts and accessories of electric lamps, batteries for flash, and for others.
31. Dr. of Inds., Madras.	Gelatine. Fish oils. Tobacco, manufactured.
32. R. C. Srivatsava.	Sugar.
33. Dr. of Inds., Assam.	Tea & Coffee, Cocoa and substitutes.
34. Golden Tobacco Co.	Cigars, cigarettes, tobacco for pipes and cigarettes, and other sorts.
35. Wright & Co. 36. Parle Products. 37. Harinarain Gopinath. 38. Tata Industrial Home.	Biscuits and cakes, Confectionary and sweets, Prepared foods (except milk products).
39. Shoorji Vallabhdas.	Provisions.
40. Mr. Misbah. Satara.	Leather, Belting for machinery. Boots, shoes and saddlery.
41. Mr. Jasdenwalla	Boots:—rubber soled, and all rubber. Medical and Hygienic Articles.
42. Lucknow School of Arts & Craft.	Glue. Paints and painters' material and drawing material.
43. Shanti Prasad Jain.	Paper and pasteboard of all kinds. Blotting paper.

*Name of Collaborator :**Names of Industries assigned :*44. Dr. of Inds., Hydera-
bad.Writing paper and envelopes, aure-
laid, or wove and ledger,
cream.

Fireworks.

45. Sing & Co.

Newsprint—paper for newspaper.

46. R. K. Niwatia.

Pasteboard, millboard & cardboard.

47. Madras Pencil Fac-
tory.

Pencils, pens, etc.

48. Laxmi Art Press.

Ink for printing and lithography.

49. Bombay Stationery
Mart.Office appliances—duplicators
punching machines, stamps,
ink pads, etc.50. Dr. of Lac Research
Institute.

Plastics made from shellac.

51. India Moulding Co.

52. Bake-o-Brass Ltd.

53. Bestolite Moulding
Co.Plastics made from synthetic pro-
ducts of casein, formaldehyde,
urea, etc.54. Dharamsey Mulraj
Khatau.Asbestos manufactures—asbestos
packing, sheets, slates, etc. of
asbestos cement, other manu-
factures.55. Western India Oil
Products.

56. Hind Candle Works.

Candles from paraffin wax.

57. Ahura Chemical Pro-
ducts.

Sizing and Finishing materials.

SUB-COMMITTEE ON MANUFACTURING INDUSTRIES

Note on items of enquiry :

The various industries which come within the compass of the Manufacturing Industries may first be examined with a view to judging their order of importance in the planned economy. This may be done by taking the following factors into consideration :—

- (a) Present production, taking into account value of goods ;
- (b) Trend of the market in the last ten years ;
- (c) Availability of raw materials required for the industry ;
- (d) Availability of skilled labour and technical experts ;
- (e) Protective duties or State subsidies, if any.

This examination will prepare the preliminary ground, after which a more detailed enquiry of the more important or the more urgent industries should be made with special regard to the following items :

1. Present actual output,
2. Potential output with the existing plant ;
3. Present consumption per head ;
4. Is the present consumption enough,
5. If not, what consumption per head should be aimed at ?
6. On the basis of 5, what would be the total consumption in the country within the next ten years from year to year, taking into account the probable increase in population ?
7. How much additional plant would be required, and how much of the existing plant would have to be scrapped in order to attain the production figures given by 6 ?
8. Distribution of the proposed additional plant in suitable areas.
9. Which of the following obstacles stand in the way of the existing plant not working up to full capacity or additional plant being installed so as to supply the total requirement of the country as envisaged in item 6 :—
 - (a) Competition by foreign goods,
 - (b) Internal competition,
 - (c) Inadequate technical skill and/or expert guidance,
 - (d) Absence of raw materials,
 - (e) Shortage of capital,
 - (f) Shortage or inefficiency of labour and/or supervision,
 - (g) Deficient marketing facilities,

(h) High railway freights,

(i) Lack of adequate support from home industries including protected industries.

10. What actions, executive, legislative, propaganda, etc. are required to overcome these obstacles ?
11. If production exceeds consumption in any industry, should the former be curtailed or the latter stimulated? In the former case, what alternative means of earning livelihood should be provided to people thrown out of employment ?
12. If the consumption is to be stimulated, which of the following steps would be most effective ?—
 - (a) Grading and Standardisation ;
 - (b) Establishment of regulated markets and marketing agencies ;
 - (c) Reduction in railway and sea freight ;
 - (d) Lower production costs ;
 - (e) Establishment of clearing house arrangements ;
 - (f) Provision of quotas and trade agreements, with other countries.
13. Any other important items not included in the foregoing list.

ADDITIONAL ITEMS OF ENQUIRY

1. The available markets for finished goods, (a) in India, (b) abroad.
2. Number of factories in India. (i) British India, (ii) Indian States.
3. Whether subsidiary of Indian or foreign company.
4. Percentage of Indian production to imports.
5. Approximate difference between the price of imported and indigenous article in percentage.
6. Import Duty on the imported article.
7. Excise Duty on the indigenous article.
8. Whether the article is covered by any Trade Agreement, and if so, how ?
9. Number of persons employed in the industry at present.
(i) skilled—Indian and foreign
(ii) unskilled.
10. How many men,—(a) skilled, (b) unskilled,—would be employed if the industry were developed enough to meet the total requirements of the country.
11. Original Block Investment.
Whether the industry is profitable or not. Approximate percentage of profit on the original block value before allowing for depreciation.
12. How do manufacturing costs per unit of production in India compare with costs abroad in respect of raw materials, stores and fuel, labour, etc. Where costs in India are higher please account for them—greater rationalisation in labour output, life of raw material, etc.
13. How transport is affecting the industry, if rates are unfavourable. What steps are suggested for mitigation.
14. General remarks.

Appendix III

RESOLUTIONS ON THE GENERAL TERMS OF REFERENCE ADOPTED AT THE MEETINGS OF THE MANUFACTURING INDUSTRIES SUB-COMMITTEE HELD ON 8TH AND 10TH APRIL '40.

Term of Reference (a) :

"Location of industries, with due regard to the raw materials needed, power supply required, man-power available and market to be supplied. In cases where more than one locality has these facilities for establishing any industry, the problem of location will also comprise the co-ordination and rational distribution of several such establishments, so as to avoid over production, misdirection of national energy, or internal rivalries. Due regard should be paid to the fullest utilisation by every unit in the country of all locally available raw materials, fuel or labour supply, and local or national market, in order to avoid any chance of monopolies being developed in industries under private ownership and management."

Recommendations :

1. So far as the capital goods and heavy industries are concerned, they should be located in a few centres, with due regard to their suitability in respect of raw materials, power, labour, transport facilities, etc. As regards the other industries, we would like to divide them into two classes :

(a) those for which the size of the economic unit is large ;
and

- (b) those for which the size of the economic unit is small.

It is difficult to define 'large' and 'small' concerns, but we suggest as an indication that concerns employing more than 100 hands or turning out goods worth more than Rs. 3 lakhs annually may be regarded large and the others small.

As regards (a), we suggest that they should be located in small areas in various Provinces where the natural factors are favourable, while as regards (b), we feel that every attempt should be made to spread them freely out in the country at large.

2. We recommend that in the matter of location of industries, the claims of the industrially backward areas should be given special consideration, subject to economic considerations justifying the same.
3. As regards the size of the units, we recommend that no unit should be so large as to be outside the reach of competition.

by smaller, but economic units. Units smaller than the economic units should not ordinarily be allowed to be started except for experimental or pioneer purposes. The size of the economic unit will be decided in the case of each industry by qualified authority.

Term of Reference (b) :

“Conservation and full economic utilisation of natural resources especially minerals and fuel resources.”

Recommendations :

1. We recommend that the power, fuel and mineral resources of the country should be fully conserved, scientifically developed, and utilised. We also recommend that wherever the power, fuel and forest resources are available, they should be utilised fully in preference to any articles brought from outside. The details of working out this principle falls more properly within the scope of the Mining and Metallurgy, as well as the Power and Fuel Sub-Committees.

Term of Reference (c) :

“The agency to conduct, control or supervise these industries,—whether individual, partnership firm, joint stock companies, statutory corporations, local bodies, Provincial Governments, or national governments, Indian or non-Indian.

Policy and legislation relating to this question of the agency to conduct, control or supervise particular industries may be enumerated by all the sub-committees in this group sitting together. Ways and means of acquiring industries of national importance by Government if not under public ownership and management from the start.”

Recommendations :

1. We recommend that the Defence Industries (as mentioned on page 102 of the red-book) should be State-owned, to the extent of the ordinary peace time needs of the Defence Services. As for the additional war time requirements, the Planning Authority should ensure while laying out the Plan to see that the non-State-owned works carrying on peacetime activities for private consumption, should nevertheless be so equipped and organised that they are capable of being switched over to State Service. No private enterprise should be allowed to make munitions in peace time.
2. In the matter of key industries, where private enterprise is forthcoming for establishment, assistance should be rendered by the State, but there should be adequate and effective

control in order to ensure that operations are carried out in the best interests of the country. Where private enterprise is not forthcoming, key industries should be established by the State, but, before this is done, the scheme prepared for the establishment of these industries should be made available to the public in order to induce private enterprise.

3. In respect of public utilities, we recommend that they should be run on the lines of the London Passenger Transport Board, where that device is feasible, or on some similar basis.
4. Where the State may deem it advisable to acquire any public utility or industrial enterprise, we are of the opinion that the same standard of compensation should apply as for any other private property. No such concern may be acquired without a fair and full compensation for the assets taken over.

Term of Reference (d) :

"Regulation and control of such monopolies including trusts and cartels, as may have been developed in any industry. (e.g., cement, or shipping, electrical, safety match.)"

Recommendations :

1. On principle we are opposed to monopolies in private hands, though we recognise that in certain industries it may be inevitable to set up or combine manufacturing units for the purpose of economic production or selling organisation with a view to preventing profiteering on the one hand, and unhealthy competition on the other. In all such cases the units or combines should be under adequate State supervision and control. Where separate businesses seek to amalgamate or otherwise work as trusts, pools or cartels or price fixing organisations, all their arrangements should be subject to State supervision and control.

(Prof. Shah agreed only to the following :

"All monopolies in any form should be acquired by the State or Local Body."

Term of Reference (e) :

"Housing of industries in the appropriate buildings, equipment with plant and machinery ; size of operations ; rationalisation of existing industries, admitting of such improvement."

Recommendations :

1. We recommend that so far as possible, new industrial concerns should be located in open areas, but for this purpose it is desirable that the local bodies should place at the dis-

posal of industries suitably developed areas possessing such facilities as transport, power, water, etc., necessary for the efficient running of the industry. Where, for reasons of public well-being it is regarded absolutely necessary to remove congestion, the relative costs of removing the factory from the congested area to an open space on payment of compensation, should be examined.

2. We recommend that all reasonable measures for the improvement of conditions of work inside the factory such as the elimination or reduction to a minimum of dust, trash, smoke, etc., regulation of heat, moisture, etc., provision of light, etc., should be adopted in all industrial concerns.
3. Rationalisation may be put through in industries where the benefit of bringing the article within the reach of a large number of consumers and producers of raw materials outweighs the disadvantage of unemployment. In the matter of rationalisation, its effects on employment, as well as the well-being of the community as a whole should be taken into consideration, and it should be carried out without causing disproportionate unemployment. Rationalisation should not be restricted in any particular unit, unless it is similarly restricted in the same industry all over India.
4. We recommend that a reasonable part of the gross profits realised by an industrial concern should be ear-marked for depreciation before any other allocation, and the sums ear-marked shall be reserved for this purpose.
5. We recommend the establishment of an Institute of Industrial Psychology, whose services should be available to the industry.

Term of Reference (g) :

“Marketing of produce, both in India and outside, with due regard to the maintenance of a reasonable stability of prices.”

Recommendations :

1. In foreign countries with which India has substantial trade, Trade Commissioners of Indian nationality should be appointed to act as liaison officers to disseminate information regarding the Indian produce, to facilitate transactions between buyers and sellers, to make periodical reports regarding the trend of markets in their areas, and to help in every possible way the concerns engaged in the buying or selling of Indian goods. In the appointment of these Trade Commissioners, their knowledge of industry, trade and commerce should be the primary consideration.

2. When any foreign country has established quota arrangements, or other restrictions, in their dealings with India, similar restrictions may be established from the Indian point of view, wherever it is necessary. Clearing agencies for any such purposes must be established, so that the whole of the foreign exchange arising out of trade operations passes through the hands of the State, and may be used by the Reserve Bank as and when it may be necessary for state purposes.
3. Qualified men should be periodically sent out in the principal consuming or potential markets of Indian goods to make an extensive survey of the changing conditions of the market and to submit reports thereupon. Where Indian produce is exported, efforts should be made to see whether the article manufactured from such material cannot be exported from India in a manufactured form, or whether some intermediate transformation of the raw material, so as to add to its value before it leaves India, cannot be achieved.
4. Museums should be established both in India and abroad for the display of the raw materials and finished goods of Indian manufacture. In each case special emphasis should be laid on the type of articles which are generally consumed in that centre, or for which there is a likelihood of good demand.
5. Standardisation of weights and measures on an all-India basis should be carried out at an early date, so that a uniform system of weights and measures is applicable to the whole country. For this purpose an institution similar to the British Standard Institute should be established at a central place. If other conditions permit, the Metric system should be adopted for this purpose.
6. Transport and storage facilities, including cold storage, both in transit and warehouses, should be provided, extended and improved for the Indian produce of all kinds according to its requirements.
7. Arts and crafts emporiums for the encouragement of local industries, especially small-scale industries, should be provided by the Provincial Governments and Local bodies.
8. The grading of all agricultural produce in order to ensure proper grades and uniform quality should be completed at an early date, and measures such as the Indian Agricultural Produce Act, Indian Fruits and Drugs Act, etc., should be passed and applied wherever necessary. Measures on the lines of the Cotton Ginning & Pressing Factories Act should also be passed and enforced to check malpractices and adulteration of superior with inferior varieties.

9. It is desirable to institute a system of licences for all businesses, and such licences may be issued by statutory bodies. Amongst the conditions attached to such licences may be one, which would render the licence liable to cancellation, if the conditions laid down for the benefit of the public are violated. In our opinion the regulation of middle-men's profit should be resorted to only when the phenomenon of profiteering is noted by the State.
10. Regulated markets should be established at a large number of places, at centres which are readily accessible to the neighbouring villages, and means of communication which should be open and serviceable all the year round, should be provided between these markets and villages.
11. Railway freights and classifications should be examined from the point of view of marketing and wherever the incidence of freight adds considerably to the transport charges and acts as a drag on the produce, the freight should be reduced by an appropriate amount.

Term of Reference (h) :

"Protection, encouragement, assistance or safeguard of such industries by the State in an appropriate form and to an adequate degree; particularly against international combines; consideration of the fiscal policy of the country."

Recommendation :

1. Industrial concerns or enterprises with international affiliations should be subjected to rigid State supervision and control, and should be debarred from enjoying the benefits of aid, subsidies or purchases by the State or Local Bodies. In respect of international combines with large resources and importing their products into India, we recommend that Indian industry should be protected by adequate import duties, and where imports into India take the character of dumping they may be stopped altogether.

Terms of Reference (i) & (j) :

- (i) "Industrial Legislation, providing for control and supervision of industry, standardisation, maintenance of efficiency, rationalisation of work, regulation of markets, etc., patents (and copyrights), licensing, and general policy regarding mining concessions".
- (j) "Legislation regarding relations of employer and workmen, including the maintenance of industrial peace, together with ways and means for ensuring it".

We do not wish to make any recommendation on the above Terms of Reference, as there are separate sub-committees of the National Planning Committee dealing with them.

Term of Reference (k) :

“Defining general policy affecting competition and co-ordination between cottage industries and industries worked by power-driven machinery”

Recommendation :

We feel that by judicious adjustment it is possible to establish a mutually beneficial co-operation between large scale and cottage industries. We favour, therefore, looking at the constituent parts of an industry and apportioning production in such a manner between large scale and cottage industry as to provide for legitimate expansion of both and utmost contribution to national well-being. We recommend that there should be a permanent Board of Research to go into the changing economics of large scale and cottage industries including its reactions on those employed in the cottage industry and a much larger number of consumers as a result of which the State may decide their respective scope.

Term of Reference (l) :

“To survey the present deficiency of technically trained men in all branches of industry, and suggest measures for making good the deficiency”.

Recommendation :

1. We recommend that suitable facilities should be provided in each Province, with special regard to the needs of the Province in the matter of industry and commerce, for training sufficient number of men for all kinds of posts in the industrial and commercial concerns. In this connection special regard should be paid to the training of men for the higher posts, who can design new types of machinery, erect large factories, undertake original industrial investigations with a view to increasing efficiency and reducing wastage and cost, and possess initiative and organising capacity. Where such facilities already exist, they should be expanded in the appropriate manner; where no such facilities exist, new departments, schools or colleges should be opened.
2. Apprentice schemes for the training of apprentices in different industries should be initiated in each area. These schemes should be worked out to give the best results, with due regard to the special interests of each industry.
3. In order to absorb the trained men turned out from the industrial institutes, apprentice classes, etc., it should be made compulsory on each industrial concern to employ a certain percentage, which would be determined with due regard to

- its special interests and requirements, of technically trained men.
4. In special cases the services of highly qualified foreigners may be engaged on a contract basis to impart training in special subjects in India.
 5. An All-India Industrial and Scientific Research Council should be established for the purpose of—
 - (1) co-ordinating the work of investigations relating to industry ;
 - (2) promoting original work ; and
 - (3) giving assistance in the matter of solving the industrial problems.

Scientists and technicians be given their due share in the administration and personnel of this Council. Sufficient funds should be placed at its disposal to enable it to achieve its objects. The Reports and Bulletins of this Council should be published in English and in such Indian languages as may be regarded useful for each industry or area.

Term of Reference (m) :

“To consider measures for manufacture of the necessary machinery and apparatus and submit notes thereon to the Engineering Industries Sub-Committee.”

Recommendations :

1. The manufacture of machinery of all types should be undertaken in India only after a careful survey of the present requirements and resources, and should be expanded progressively in proportion to our industrial development in the future. For this purpose, an immediate survey of the following materials which are essential for the manufacture of machinery should be undertaken, and this survey should be repeated every five years to assess the extent to which as a result of the fullest possible exploitation of our resources, India is able to produce the materials required for the manufacture of machinery :

Antimony	Manganese
Asbestos	Mercury
Asphalt	Molybdenum
Bauxite	Nickel
Camphor	Phosphate-rock
Cement	Platinum
Chrome Ore	Potash
Cobalt	Rubber
Copper	Salt
Cryolite	Sulphur

Felspar
Graphite
Iodine
Iron Ore
Lead, Magnesite,

Tin
Tungsten Ore
Vanadium
Vanadium Ore
Zinc.

2. An all-India institution, like the National Physical Laboratory, should be established at a central place at an early date in order to maintain standards, test instruments and apparatus, and undertake original research in applied science, especially relating to the design and manufacture of machinery and capital goods.

RESOLUTIONS BY THE NATIONAL PLANNING COMMITTEE ON THE INTERIM REPORT OF THE MANUFACTURING INDUSTRIES SUB-COMMITTEE.

The Interim report of the Sub-Committee on Manufacturing Industries was presented by Mr. Ambalal Sarabhai, Chairman of the Sub-Committee, on the 3rd May 1940. Dr. Nazir Ahmad, Secretary of the Sub-Committee was also present. Discussion continued on the 5th & 8th May.

The following resolutions were tentatively agreed to.

1. In the matter of location of industries, the claims of the industrially backward areas should be given special consideration, subject to economic considerations justifying the same.

2. With regard to the location of industries, equal opportunities should be given to every federating unit, subject to economic consideration, of employment of labour and development of natural resources, provided similar conditions of work and wages prevail in the unit under consideration.

3. As regards the size of the units, it is recommended that no unit should be so large as to be outside the reach of competition by smaller, but economic units. Units smaller than the economic units should not ordinarily be allowed to be started, except for experimental or pioneer purposes. The size of the economic unit will be decided in the case of each industry by qualified authority.

4. The power, fuel and mineral resources of the country should be fully conserved, scientifically developed, and utilised. We also recommend that where the power, fuel, and forest resources are available, they should be utilised. The details of working out this principle falls more properly within the scope of the Mining and Metallurgy as well as the Power and Fuel Sub-Committees.

5. The Defence Industries (as mentioned on page 102 of the red-book) should be State-owned in peace and war. The Planning Authority should also ensure, while laying out the plan, to see that non-State owned works, carrying on peace-time activities for private consumption, other than those which constitute Defence Industries, should nevertheless be so equipped and organised that they are capable of being switched over to State service for additional war-time requirements.

6. Public utilities should, as a general rule, be managed by public autonomous trusts.

7. On principle we are opposed to monopolies in private hands; and, therefore, all monopolies which are injurious to public interests, or whose acquisition is beneficial to public interests, should be acquired by the State. We recognise, however, that in certain industries it may be inevitable to combine manufacturing units for the purpose of better economic production or selling organisation with a view to prevent profiteering on the one hand and unhealthy competition on the other. In all such cases the units or combines should be under adequate State supervision and control.

8. We recommend that, so far as possible, new industrial concerns should be located in suitably developed open areas, where the necessary facilities for the running of such industries and the proper housing of the industrial population are provided.

9. We recommend that all reasonable measures for the improvement of conditions of work inside the factory, such as the elimination or reduction to a minimum of dust, trash, smoke, etc., regulation of heat, moisture, etc., provision of light etc. should be adopted in all industrial concerns.

10. We recommend that a reasonable part of the gross profits realised by an industrial concern should be ear-marked for depreciation before any other allocation, and the sums ear-marked shall be reserved for this purpose.

11. We recommend the establishment of an Institute of Industrial Psychology, whose services should be available to the industry.

12. In foreign countries with which India has substantial trade, Trade Commissioners of Indian nationality should be appointed to act as liaison officers, to disseminate information regarding the Indian produce, to facilitate transactions between buyers and sellers, to make periodical reports regarding the trend of markets in their areas, and to help in every possible way the concerns engaged in the buying or selling of Indian goods. In the appointment of these Trade Commissioners, their qualifications for such work, including their knowledge of industry, trade and commerce, should be the governing consideration

13. When any foreign country has established quota arrangements, or other restrictions, in their dealings with India, similar restrictions may be established from the Indian point of view, wherever it is necessary. Clearing agencies for any such purposes must be established, so that the whole of the foreign exchange arising out of trade operations passes through the hands of the State, and may be used by the Reserve Bank as and when it may be necessary for state purposes.

14. Qualified men should be periodically sent out in the principal consuming or potential markets of Indian goods, to make an extensive survey of the changing conditions of the market, and to submit reports thereupon. Where Indian produce is exported, efforts should be made to see whether the articles manufactured from such material cannot be exported from India in a manufactured form, or whether some intermediate transformation of the raw material, so as to add to its value before it leaves India, cannot be achieved.

15. Museums should be established both in India and abroad for the display of the raw materials and finished goods of Indian manufacture. In each case special emphasis should be laid on the type of articles which are generally consumed in that centre, or for which there is a likelihood of good demand.

16. Standardisation of weights and measures on an all-India basis should be carried out at an early date, so that a uniform system of weights and measures is applicable to the whole country. For this purpose a Bureau of Standards should be established at a central place, and this should collaborate with international organisations set up for such purposes. If other conditions permit, the Metric System should be encouraged and adopted.

17. Transport and storage facilities, including cold storage, both in transit and warehouses, should be provided, extended and improved for Indian produce of all kinds according to its requirements.

18. Arts and crafts emporiums for the encouragement of local industries, especially small-scale and cottage industries, should be provided by the Provincial Governments and Local bodies.

19. The grading of all agricultural produce in order to ensure proper grades and uniform quality should be completed at an early date, and measures such as the Indian Agricultural Produce Act, Indian Foods and Drugs Act, etc. should be passed and applied wherever necessary. Measures on the lines of the Cotton Ginning and Pressing Factories Act should also be passed and enforced to check malpractices and adulteration of superior with inferior varieties.

20. It is desirable to institute a system of licences for all businesses, more especially the distribution of industrial products, and such licences should be issued by statutory bodies. Amongst the conditions attached to such licences should be one, which would render the licence liable to cancellation, if the conditions laid down for the benefit of the public are violated.

21. Railway freights and classifications should be examined from the point of view of marketing of industrial products ; and wherever the incidence of freight adds considerably to the transport charges and acts as a drag on the industry, the freight should be reduced by an appropriate amount, with due regard to safeguarding other interests concerned.

22. We feel that by judicious adjustment it may be possible to establish a mutually beneficial co-operation between large scale and cottage industries as a whole. We favour, therefore, looking at the constituent parts of an industry and apportioning production in such a manner between large scale and cottage industry as to provide for legitimate expansion of both, and utmost contribution to national well-being. We recommend that there should be a permanent Board of Research to go into the changing economics of large scale and cottage industries, including its reactions on those employed in the cottage industry and a much larger number of consumers, as a result of which the State may decide their respective scope.

23. We recommend that suitable facilities should be provided in each Province, with special regard to the needs of the Province in the matter of industry and commerce, for training sufficient number of men and women for all kinds of posts in the industrial and commercial concerns. In this connection, special regard should be paid to the training of men for the higher posts, who can design new types of machinery, erect large factories, undertake original industrial investigations with a view to increasing efficiency and reducing wastage and cost, and possess initiative and organising capacity. Where such facilities already exist, they should be expanded in the appropriate manner ; where no such facilities exist, new departments, schools or colleges should be opened.

24. Apprentice schemes for the training of apprentices in different industries should be initiated in each area. These schemes should be worked out to give the best results, with due regard to the special interests of each industry, if necessary by legislation.

25. In order to absorb the trained men and women turned out from the industrial institutes, apprentice classes, etc. it should be made compulsory on each industrial concern to employ a certain percentage, which would be determined with due regard to its special interests and requirements, of technically trained men.

26. In special cases the services of highly qualified foreigners may be engaged, on a contract basis, to impart training in special subjects in India.

27. Until such time as adequate facilities are available in India for the training of men and women for all kinds of work in industrial concerns, it would be necessary for Indians to receive this training in suitable technical institutions and industrial organisations in foreign countries. We recommend in such cases the State should furnish full information regarding such institutions, make the necessary arrangements for the training of Indians abroad ; and, in the case of qualified and deserving persons, should render them such financial and other help as may be necessary. It should be a part of the Stores Purchase policy of the State to stipulate for the training of men selected by the State.

28. It is recommended that a Standards Institution should be established at an early date. This Institution should prepare and issue standard specifications for various articles manufactured in India. Such standard specifications will, on the one hand, safeguard the purchaser by ensuring a generally suitable quality and performance at a reasonable price, and on the other, safeguard the manufacturer by minimising unfair competition.

29. The manufacture of machinery of all types should be undertaken in India after a careful survey of the present requirements and resources, and should be expanded progressively in proportion to our industrial development in the future. For this purpose, an immediate survey of the following materials, which are essential for the manufacture of machinery, should be undertaken ; and this survey should be repeated every five years to assess the extent to which, as a result of the fullest possible exploitation of our resources, India is able to produce the materials required for the manufacture of machinery :

Antimony	Manganese
Asbestos	Mercury
Asphalt	Molybdenum
Bauxite	Nickel
Camphor	Phosphate-rock
Cement	Platinum
Chrome Ore	Potash
Cobalt	Rubber
Copper	Salt
Cryolite	Sulphur
Felspar	Tin
Graphite	Tungston Ore
Iodine	Vanadium
Iron Ore	Vanadium Ore
Lead, Magnesite	Zinc.

REPORT OF THE MANUFACTURING INDUSTRIES SUB-COMMITTEE

PART I

1. PERSONNEL :

The Manufacturing Industries Sub-Committee was appointed by the National Planning Committee to investigate and report upon all industries which may properly be termed manufacturing industries, *i.e.* all those industries in which raw or semi-finished materials are turned into finished products, leaving aside chemical, engineering and mechanical industries.

The original personnel of the sub-committee as appointed by the National Planning Committee was as follows :—

Shri Ambalal Sarabhai, (*Chairman*)

* Dr. Nazir Ahmed, (<i>Secretary</i>)	Shri Kasturbhai Lalbhai,
Prof. K. T. Shah,	Shri Manu Subedar,
Shri D. I. Narasimha Raju,	The Hon'ble Mr. Swaib Qureshi,
Shri B. Viswanath,	Shri M. C. Ghia,
Shri Shanti Prasad Jain,	Shri N. N. Rakshit, and
Sardar Bahadur Indra Singh,	Sir A. R. Dalal.

* On his appointment as a member of the Indian Tariff Board in January, 1946, resigned his Secretaryship.

The sub-committee suffered a loss in the death of Mr. Narasimha Raju, one of its members. Of the rest, Sir A. R. Dalal expressed his inability to serve on this sub-committee, while at a later date, Dr. Suresh Chandra Banerjee was appointed by the Labour sub-committee as their delegate on the Manufacturing Industries Sub-committee to assist and help in the consideration of such problems as are common to both the sub-committees. Unfortunately, he was not able to attend any meeting of the sub-committee. We should also like to mention that shortly before his lamented death, Mr. P. N. Mathur prepared a valuable note for the benefit of the sub-committee, and we would like to place on record our deep appreciation of the service he rendered, in a selfless spirit, in spite of his fatal illness.

2. LIST OF INDUSTRIES :

As will be easily realised, a very large number of industries fall in the group of Manufacturing Industries. Accordingly, the first task which the sub-committee set to itself was the preparation of as complete a list as possible of these industries. This list

was prepared, and in order to facilitate further discussion, the various industries were classified under different major heads in such a way that the industries falling under each head were more or less related to one another. Thus, one head dealt with all household articles, another with glass manufactures, the third with leather manufactures, the fourth with textiles, and so on. The list, as finally approved by the sub-committee prior to the Interim Report, is given in Appendix I. It is not assumed that this list is complete in all respects, but an effort has been made to ensure that no major manufacturing industry of any appreciable magnitude has been left out of consideration.

We do not consider it necessary to revise and enlarge the list. Originally it was intended to submit a short report on each of the industries. It has not been possible to get dependable information on several of them. The position has since considerably altered ; and even if we attempt to get reports and succeed, they will be of little value. The Government of India have made certain investigations in respect of some of the industries by appointing several Panels. Our Sub-committee has not the organization, personnel and the means to more than lay down a general policy, and leave more detailed investigations to be undertaken later by the organization that succeeds the N. P. C. To be of value each of such reports, at proper times, should be drawn up by specialists, in India or abroad. We inquired from the Hon. General Secretary, and he is in agreement with the view expressed above, regarding non-revision of the list of industries.

3. PLAN OF WORK :

(A) Collaborators :

As mentioned above, the sub-committee realised, at an early stage, that it had to deal with a very large number of industries, many of which required expert knowledge for a satisfactory examination and report. Two courses were open to the sub-committee. One was to co-opt a large number of gentlemen, who possessed special knowledge of the different industries ; while the other was to approach a large number of gentlemen with the request that they might kindly act as collaborators by writing memoranda on one or more industries, which might be considered by the sub-committee. It was felt that the first method, if followed, would make the personnel of the sub-committee large and its work cumbersome ; while the expense of paying the travelling allowances of all the original and the co-opted members would impose a heavy burden upon the financial resources of the National Planning Committee. Therefore, after due consideration of this point, the sub-committee decided to adopt the second alternative, and to request a number of gentlemen kindly to act as collaborators. Accordingly, a list of these collaborators was

prepared. Pandit Jawaharlal Nehru, the Chairman of the National Planning Committee, very kindly wrote to each of them and requested them to submit notes. The names of these collaborators, as well as the distribution of industries among them are given in Appendix 11 of our Interim Report.

Since the suspension of active work of the N. P. C. from 1940,, Dr. Nazir Ahmed the Hon. Secretary, until recently, attempted to collect information and get reports on certain industries. In other respects the work of our sub-committee remained practically at a stand-still. It has been resumed since November 1945 in accordance with the Instructions contained in the letter of 17th November 1945 of the Hon. General Secretary to the members of the N. P. C. and the Chairmen and Secretaries of the Sub-Committees. For the reasons stated in 2 above, we have not attempted to get further reports on the industries on which no information has been gathered previously.

(B) Special Questionnaires :

On starting the work it was found that most of the questions in the two Questionnaires which had been already issued by the National Planning Committee were of a general nature, and that the replies received from the Provincial Governments, Universities, Industrial Organizations, etc. were not likely to be of very great help in the special work which the Manufacturing Industries Sub-committee had in mind. Accordingly, two short questionnaires, bearing closely upon the manufacturing industries, were prepared, and these were sent to the collaborators, so that they could prepare their memoranda on the lines indicated in these questionnaires. These two questionnaires are given in Appendix III of our Interim Report.

(C) Response of Collaborators :

Prior to our Interim Report in April 1940, of the 57 collaborators who were addressed in respect of three industries, only 22 were kind enough to prepare and submit memoranda up to the date of preparing this report ; two had acknowledged the letters and promised to prepare the memoranda, but these have not yet been received by the sub-committee in spite of reminders ; whilst from 29 gentlemen who were addressed in the matter no acknowledgement or reply has been received. But since April 1940, no collaborators have responded. The whole position regarding the response of the collaborators is summarised and given in Appendix IV of our Interim Report.

For considerations put forward in 3 (A) above, we have not thought it necessary to obtain further reports from collaborators and others.

(D) Appointment of a Technical Assistant :

Prior to April 1940, it was realised that no useful purpose would be served by waiting any longer in order to obtain the required information by correspondence. It was decided to appoint a Technical Assistant for a short period of time and to send him round to the various industrial centres to collect this information. It should be emphasised here that the value of the report of the Manufacturing Industries Sub-Committee, from the point of giving guidance for the establishment of various industries in the country, depends upon the completeness and the authenticity of data contained therein and therefore every effort has been made to make it as complete and reliable as possible.

For the reasons advanced above we feel that our report cannot be complete and authentic in respect of data for each industry and we do not attempt it at this stage. We want the data given in the notes to be accepted as general indications which require further and fuller investigations and in some cases by experts.

(E) Suitability of different Provinces and States for Industries:

Prior to April 1940, the question of the suitable location of new industries and the development of the older industries in the existing areas also engaged the attention of the Manufacturing Industries sub-committee at an early stage of its work. It was felt that in this connection it would be useful to enquire from the various Provincial Governments and States as to which of the industries, falling under the manufacturing industries group, were specially suited for development or extension in their areas. Accordingly the list of these industries was sent round to all the Provincial Governments and the collaborating States, with the request that after taking into consideration the factors of raw material, labour, market, finance, etc. they may kindly indicate those industries for which there was special scope for development or extension in their respective areas. Some of the Governments, like the Punjab Government, addressed in this matter, took the trouble of preparing elaborate and useful notes, while the other Governments indicated only in a general way a fairly large number of industries for which they thought there was scope for development or extension in their areas. It would have been far more useful from the point of view of the work of the Sub-Committee if each Government addressed in this matter had given special thought to the various factors which go to the building up of a particular industry, and had indicated only a small number of industries for which there was special scope for development and extension in their area. However, such information as has been collected as a result of this enquiry is being forwarded to the Hon. General Secretary.

(F) Customs Tariffs & Labour Legislation in the States :

It was also felt, at an early stage of the work of the sub-committee, that one of the factors which may influence the establishment of industries in the Indian States would be the Customs regulations and labour laws prevailing in these States. Accordingly, the States were requested to give information on these two points, and the replies received are being forwarded to the Hon. General Secretary.

(G) Statistical data with regard to demand in the country and Joint Stock Companies :

We give without revision what was stated under the said heading in our Interim Report :—

One of the important considerations determining the establishment of a new or the expansion of an old industry is the actual or potential demand in the country for the manufactured article. Therefore, the exact knowledge of the consumption of the various articles falling under the manufacturing industries group would be of very great help in laying out the future plan of the industrial development of the country. Unfortunately, with the present lacunae in our statistical knowledge, it is not always possible to obtain this information with any degree of accuracy except in the case of a few articles. From this point of view, the various articles may be divided into three classes, namely :

- (i) Those which are almost completely imported from abroad ;
- (ii) Those which are partly manufactured in India and partly imported from abroad ; and
- (iii) Those which are almost completely manufactured in India.

As regards (i) useful information is given in the Government publications, especially in the volume entitled "Sea-borne Trade of India". It must be pointed out here that in many cases several articles are lumped together with the result that it is not always possible to find out the import of each important article. On the other hand valuable funds and space are wasted in giving information regarding such articles as are imported in small quantities. The tables given in this publication require re-casting at an early date, so that in those cases for which the imports are relatively small, say, less than Rs. one lakh a year, they may be omitted, while in other cases, where the imports are large but the articles have been lumped together, they may be separated and information furnished in respect of each article. This will considerably enhance the usefulness of these tables, without, it is

hoped, increasing the work of the Department of Commercial Intelligence and Statistical Information. In the case of articles falling under the sub-group (ii) information, so far as it relates to imported articles, is available, subject to the deficiencies mentioned above, while only in a few cases information regarding the production in India is known. Similarly in the case of articles falling under sub-group (iii), except in the case of sugar, steel, and textiles, very little reliable information is available in regard to the articles which are almost completely manufactured in India. Thus, in the absence of a comprehensive census of industrial production, such as is carried out in U. S. A. the sub-committee could fall back only upon the figures of imports as its guide for ascertaining the demand in the country. It is admitted that this method is very defective, but it is the only one permissible under the limitations referred to above. It was, therefore, decided to prepare tables showing the annual imports of the various articles falling under the Manufacturing Industries group during the last five years, so that they may give information not only with regard to the average import of each article, but also with respect to the increase or decrease in its quantity and value during the last five years. These tables are given in Appendix V (Interim Report). It was further thought that the tables giving the latest information with regard to the authorised capital, subscribed capital, etc. of the Joint Stock Companies established in India would also be found useful by the readers of this report, and accordingly these tables were prepared and are given in Appendix VI (Interim Report).

Meeting of the Sub-committee :

Owing to the large distances separating some of the members and their preoccupation with other business, it was not possible to hold more than four formal Meetings of the sub-committee, though several informal conferences between the Chairman and Secretary of the sub-committee and the Hon. Gen. Secretary of the National Planning Committee were held. Even so, some of the members of the sub-committee did not find it possible either to attend the meetings of the sub-committee, or to give the sub-committee the benefit of their views in the form of memoranda, notes etc. Apart from the Chairman and Secretary, who naturally had to do the major part of the work of the sub-committee, the position with regard to the other members in respect of their attending meetings or submission of notes, memoranda, etc. is shown below :

Total number of meetings held :	5
Total number of members :	12
1st meeting: 30th August 1939, 11.30 a.m.	(7 members attended)
2nd meeting : 8th Feb. 1940, 5 p. m.	(3 " " ")

3rd meeting : 13th March 1940, 1 p. m.	(5	„	„)
„ (contd.) 14th March 1940, 5 p.m.	(6	„	„)
4th meeting : 8th April 1940, 3 p. m.	(6	„	„)
„ (contd.): 9th April 1940, 9 a. m.	(5	„	„)
5th meeting : 25th April 1940, 4-45 p. m.	(5	„	„)

Name of Member	No. of meetings attended.	Memoranda sent for consideration.
1. Ambalal Sarabhai	All the five	
2. Nazir Ahbad	All the five	
3. Prof. K. T. Shah	Four	
4. Kasturbhai Lalbhai	All the five	Notes on cotton & starch Industry.
5. Manu Subedar	Two	Amendments to resolutions.
6. M. C. Ghia	Four	Amendments to resolutions.
7. Shuaib Qureshi	One	
8. B. Viswanath	One	
9. Shanti Prasad Jain	None	
10. Sardar Indra Singh	None	Opinions on issues
11. N. N. Rakshit	None	raised on general
12. S. C. Banerjee (Labour)	None	policy, and amend- ments to resolutions.

The minutes of the five formal meetings are reproduced in Appendix VII.

4. SCOPE OF THE REPORT :

Although a large number of gentlemen possessing expert knowledge of industries were requested to act as collaborators, it was realised that even this method, which was the most economical and convenient under the circumstances, would not enable the sub-committee to make a thorough and exhaustive report on each and every industry falling within the manufacturing industries group. For this purpose, it would have been necessary for the sub-committee, collectively or in small groups, to make extensive tours in the country, to examine a large number of factories on their sites ; to interrogate a very large number of people connected with the different industries in order to elucidate doubtful or controversial matters ; to examine the statistical data relating to capital, working costs, labour conditions, raw materials, machinery, magnitude and trend of the market, etc., etc., in short to undertake work of a nature which is ordinarily done by

a Commission or Tariff Board for each industry. In view of the fact that most of the members of the sub-committee had other occupations which absorbed the major portion of their time, and from which they could not get away for more than a few days, such a course was not possible. It was, therefore, realised that the report of the sub-committee, even with the help of the collaborators could at best be of a general character, while the work of making detailed reports on the different industries, taking into consideration all the various factors involved in the establishment and economic running of an industry, must be left either to the Industrial Commission which is planned to be set up later on, or to some such similar body. It was further realised that this general report could very well be divided into two parts, one part to deal with the general terms of reference, which are common to the Industries Group of sub-committees, as given on pages 27-29 of the recent consolidated Handbook issued by the National Planning Committee; and the other part dealing with the special problems of Manufacturing Industries proper.

5. NATIONAL PLANNING COMMITTEE ON LICENSING :

“This Committee is of the opinion that no new Factory should be allowed to be established, and no existing factory should be allowed to be extended or to change control, without the previous permission in writing of the Provincial Government. In granting such permission the Provincial Government should take into consideration such factors as desirability of location of industries in a well distributed manner over the entire province, prevention of monopolies, discouragement of the establishment of uneconomic units, avoidance of over production and general economic interest of the province and the country. The various provincial Governments should secure for themselves requisite powers for the purpose, if necessary, by undertaking suitable legislation”.

We reproduce above the text of the Resolution of the N. P. C. bearing upon the Manufacturing Industries Group. Furthermore, as some of the Resolutions of our Sub-committee in part I of the Interim Report, deal with Defence, and Key Industries and Public Utilities, it is relevant to reproduce the list of these industries as decided upon by the N. P. C. We incorporate it from our Interim Report without revision. To make the list complete several items may require to be added or eliminated as a result of the developments in World War II. Many of the weapons and armaments have become obsolete. The Atomic Bomb discovery will cause extensive changes in offensive and defensive warfare and equipment.

List of Defence Industries :

1. Fire arms (land, air and marine) and their parts.
2. Munitions, cartridges, explosives, shells, torpedoes, etc.
3. Tanks and armoured cars and other forms of mechanical equipment especially designed for military purposes.
4. Warships of all types including submarines.
5. Military Aircraft of all kinds.
6. Gases for warfare and gas-masks.

Note :—Warships and military aircraft can also be made in ordinary peace time establishments.

List of Key Industries :

1. Power, Hydro and Thermal (generator).
2. Fuel, coal and fuel wood, mineral oil, power alcohol, natural gases.
3. Metals, ferrous and important non-ferrous, including winning of ore for them.
4. Industries for the making of machine tools.
5. Industries for the making of machinery and machinery parts.
6. Heavy engineering industries for the building of ships, locomotives, wagons, automobiles, aircraft and the like (vital).
7. Instruments and apparatus, commercial, industrial and scientific. (Standards).
8. Chemicals—heavy chemicals, fine chemicals, including dyes, (some vital), fertilisers and refractories.

List of Public Utilities :

1. Distribution of electricity, gas and other forms of energy.
2. Public transport and communication services.
3. Water supply.
4. Sanitation.

6. LARGE SCALE AND COTTAGE INDUSTRIES :

We cannot do better than to reproduce our comments in the Interim Report :

“The second aspect to which reference has been made above relates to the position of the manufacturing industries vis-a-vis the cottage industries. It is evident even from a cursory examination of the question, that several of the

articles, which fall within the manufacturing industries group, can be prepared either on a large scale or on a small or cottage scale. In some countries like Switzerland, Sweden, Japan, etc. a state of equilibrium appears to have been reached between the large scale and the cottage industries, as a result of which the two forms of production, instead of remaining in a state of perpetual tension and conflict, supplement one another to the mutual benefit of both. In India, however, the position is far from clear at present. One school of thought lays greater emphasis on the development of the large scale industries on grounds of higher efficiency, low costs, uniformity of products, etc., while another school of thought lays greater emphasis upon the development of cottage industries for humanitarian and social reasons. The Manufacturing Industries Sub-committee tried, at the outset, to enlist the support of the All India Village Industries Association, so as to reach a common agreement with regard to the distribution of industries between large scale and cottage scale, but did not meet with any success. Left to itself, the Manufacturing Industries Sub-Committee had to consider the question as to what size of a particular industry may be regarded as cottage or small scale industry, as against large scale industry. After giving due thought to this question, it decided to look upon it from a purely objective point of view, and agreed upon the following definition of manufacturing industry :

‘ A Manufacturing industry (A) comes under the Factories Act, (B) uses at least 10 B. H. P. motor or engine in the aggregate, and (C) employs labour to whom a fixed return in cash or kind is made, or shows any one or more of these characteristics. ’

The relative advantages of large scale versus cottage industries will be discussed in the amplifying note under the proper head. ”

Acknowledgements :

We would like to place on record our deep sense of gratitude and appreciation to the Provincial and Indian States Governments and our collaborators, who have co-operated with us by preparing and sending us reports, memoranda, notes, etc. without which it would have been manifestly impossible for us to make any progress. We would also like to offer our thanks to the Chairman, Hon. General Secretary, Jt. Secretaries and the staff of the National Planning Committee for their valuable support and help in our work.

According to the directive of the Hon. General Secretary, in his letter of 17th November, this final report is completed by the

undersigned as the Chairman. Dr. Nazir Ahmad, the Secretary of the Sub-committee, resigned on his appointment as a Member of the Tariff Board. Copies of the Report have been forwarded to the members of the Sub-Committee and the alterations they suggest and their comments will be forwarded to the Hon. General Secretary for submission to the N. P. C. In respect of such of the alterations that may be suggested by the members with which the undersigned is in agreement, these will be notified to the Hon. General Secretary.

The undersigned wishes to express his grateful thanks to Prof. K. T. Shah, the Hon. General Secretary, for the assistance that he has given in the work of the Sub-committee from the very beginning, and to Dr. Nazir Ahmad for the valuable work he did as Secretary of the Sub-Committee. The assistance given by Mr. K. V. Shah from the very beginning and Mr. T. K. Menon in the final report has been valuable.

17th April 1946.
P. O. Box No. 28,
Ahmedabad.

Sd/- AMBALAL SARABHAI,

Chairman.

PART II

FINAL RECOMMENDATIONS ON THE GENERAL TERMS OF REFERENCE

We have carefully gone through the Interim Report which was submitted in April 1940, and revised our recommendations where necessary in accordance with the new directives. We now also make certain new recommendations and observations :—

1. Provision for full employment of all capable adult citizens, and social security of the entire working community against normal contingencies of life and work, have been recommended in our Interim Report to the extent to which these fall within the scope of our Sub-Committee.
2. In respect of new scientific discoveries, technological improvements, or mechanical inventions which have taken place in the course of the war, or because of it, we regret that our Sub-Committee, covering as it does a large number of industries, is unable to give any helpful and dependable indications. We do not therefore attempt it, and believe that it falls within the scope of detailed planning by the body which takes over National Planning or by the Government in power at the time. We assume that the Government then will be of a free and independent India, capable and with a scientific outlook, having the co-operation and support of the country.

Terms of Reference (A) :

Location of industries, with due regard to the raw materials needed, power supply required, man-power available, and market to be supplied. In cases where more than one locality has these facilities for establishing any industry, the problem of location will also comprise the co-operation and rational distribution of several such establishments, so as to avoid over-production, misdirection of national energy, or internal rivalries. Due regard should be paid to the fullest utilisation, by every unit in the country, of all locally available raw materials, fuel or labour supply, and local or national market, in order to avoid any chance of monopolies being developed in industries under private ownership and management.

Recommendations :

1. So far as the capital goods and heavy industries are concerned, they should be located in a few centres, with due regard to their suitability in respect of raw materials, power, labour,

transport facilities etc. As regards the other industries, we would like to divide them into two classes :

- (a) those for which the size of the economic unit is large.
- (b) those for which the size of the economic unit is small.

It is difficult to define 'large' and 'small' concerns, but we suggest as an indication that concerns employing more than 100 hands, or turning out goods worth more than Rs. 3 lakhs annually may be regarded large and the others small.

The following appear to be some of the principal causes of the large, small, and cottage scale and agricultural industries, not being widely spread over in the rural areas :

1. Lack of all weather rail, road, and water transport.
2. Cost of transport and in some items additional cost of packing.
3. Unavailability of—
 - (a) Power from a public supply at cheap rate,
 - (b) Trained and semi-trained workers,
 - (c) Artisans for specialised work such as machinists, electricians, tinmen, carpenters, blacksmiths, welders, masons and others,
 - (d) Certain raw and other materials, stores, etc.
 - (e) Ready purchasers of products.
4. Unavailability of essential—
 - (a) Services, such as medical, education, Postal, Telegraphic, etc.
 - (b) Amenities of life.
 - (c) Necessities, such as vegetables, fruits, clothing, newspapers and certain consumption goods.

Power driven large-scale sugar factories are widely spread over mostly in rural areas. Due to demand, sources of supply of many of the items of 1 to 3 above are increasing ; but sugar manufacture being a seasonal operation in the North, the growth of dependent trades and services is only partial.

If difficulties arising out of 1 and 2 above can be overcome, and power is made available at a cheap rate; and medical, educational and other essential services are provided within a reasonable distance in rural areas, then, with proper planning in respect of location, licensing and certain measures of protection from undue competition, there would be a wide spread-over of industries.

Each of the principal objectives of the plan, viz provision of employment, increase in per capita income, equitable distribution of profit, healthy life and surroundings, and putting within the means and therefore reach of the largest number of the entire community necessities of civilised life at low prices, can only be reached in a large agricultural country like India by a wide spread over of all industries, small and large, in rural areas.

The following suggestions are made with a view to provide for the largest spread over of cottage, small scale and large scale industries in rural areas. The feasibility and economics of such measures, we recognise, require to be examined by an Expert Committee :—

1. Prevention, by legislation and regulations, of some of the processes carried on in urban areas, such as, making of flour, oil pressing by hand or bullock *ghanis*, bakeries, leather tanning, manufacture of wooden and leather goods by hand and factory for sale as finished and ready made, bone crushing, glue making industry, and many others. The advantage will be that all these processes will be done in villages. By-products will also be available in villages. Finished products ought to take less freight in weight than in raw. Wages and cost of living being lower in rural areas than in urban areas, cost of manufacture will go down. Cities will not be congested and those employed in industry will live in healthy rural areas.

2. Pooling of rates so as to keep the same freight to natural consumption centres. The freight rate should include freight, to railway or port.

At present, even though not scientifically fixed, industrial centres are mostly on railway lines or at ports. This is for cheap freight both for incoming goods for manufacture and outgoing products. If, as suggested above, freight is pooled, then there would also be other advantages in locating industries in rural areas.

It is not suggested that, for home consumption as distinct from sale, flour cannot be made or clothing and shoes to order cannot be made in an urban area. Pooling of freight would result in increase of freight at the place of origin, and within short distances and a reduction in long distances. But, as stated above, in order to prevent unnecessary carrying cost both to the State and consumer, equalisation of freight should apply within certain regions, and not throughout India. This would indirectly assist local raw material being made available wherever possible, and finished products being made available and distributed respectively within the shortest and most economic near localities.

We recommend that in the matter of location of industries, the claims of the industrially backward areas should be given

special consideration, subject to economic considerations justifying them.

As regards the size of the units, we recommend that no unit should be so large as to be outside the reach of competition by smaller, but economic units. Units smaller than the economic units should not ordinarily be allowed to be started except for experimental or pioneer purposes. The size of the economic unit will be decided in the case of each industry by a qualified authority.

Term of Reference (B) :

“Conservation and full economic utilisation of natural resources especially minerals and fuel resources.”

Recommendations :

1. We recommend that the power, fuel and mineral resources of the country should be fully conserved, scientifically developed, and utilised.

We also recommend that wherever the power, fuel and forest resources are available, they should be utilised fully. The details of working out this principle falls more properly within the scope of the Mining and Metallurgy, as well as the Power and Fuel Sub-Committees.

Term of Reference (C) :

“The Agency to conduct, control or supervise these industries, whether individual, partnership firm, Joint stock companies, statutory corporations, local bodies, Provincial Governments, or National Governments Indian or non-Indian.

Policy and legislation relating to this question of the Agency to conduct, control or supervise particular industries may be enumerated by all the sub-committees in this group sitting together. Ways and means of acquiring industries of national importance by Government if not under public ownership and management from the start.”

Recommendations :

1. We recommend that the Defence Industries (as mentioned on Page 102 of the red book) should be State-owned, to the extent of the ordinary peace time needs of the Defence Services. As for the additional war time requirements, the Planning Authority should ensure while laying out the Plan to see that the non-State-owned works carrying on peacetime activities for private consumption, should nevertheless be so equipped and organised that they are capable of being switched over to State Service. No private enterprise should be allowed to make munitions in peace time.

2. In the matter of key industries, where private enterprise is forthcoming for establishment, assistance should be rendered by the State, but there should be adequate and effective control in order to ensure that operations are carried out in the best interests of the country. Where private enterprise is not forthcoming, key industries should be established by the State, but before this is done, the scheme prepared for the establishment of these industries should be made available to the public in order to induce private enterprise.

3. In respect of public utilities, we recommend that they should be run on the lines of the London Passenger Transport Board, where that device is feasible, or on some similar basis.

4. In respect of other industries we favour the present system of private conduct and ownership, but subject to State Control and regulations in respect of certain industries and such of its products which constitute necessities of life. But such control should be merely to maintain reasonable prices and quality. It should not be of a nature as to result in inefficient working. Ownership by State and control in day-to-day management prevails in several Railways in India and in Ordnance Factories. Municipalities are controlled by popular representatives and most Municipalities run their own water and drainage services. Several Indian States own and run certain industries. Several public hospitals and educational, scientific and technical institutions are run by Government, Public Bodies or Societies. It may be helpful to study the working of these in order to determine the extent to which major weaknesses arising out of the system can be overcome.

5. Where the State may deem it advisable to acquire any public utility or industrial enterprise, we are of the opinion that the same standard of compensation should apply as for any other private property. No such concern may be acquired without a fair and full compensation for the assets taken over.

Compulsory arbitration, license by Government authorities, control of raw materials and finished products, on selling as of cloth, yarn, transport, foreign exchange, imports and exports, rationing in respect of certain necessities of life and joint purchase by certain Governments as in the case of Egyptian cotton have been in operation during war time. The weaknesses arising out of such controls and regulations are ascertainable and well-known. Weaknesses in the former uncontrolled and unregulated production and distribution being recent are also known. Exercise of controls and regulations by a foreign government without popular support would invariably fail to succeed. But, in countries which are self governing, the effects of controls may be studied. This will assist in framing effective Controls, regulations, and penalties for breach in a planned economy. It is re-

cognised that a Planned Economy requires State Control and supervision and cooperation of the public in larger interests. With the demoralisation arising out of World War II and the legacy which the foreign government will leave behind, it will take some years for effective Controls to be devised and successfully operated.

Term of Reference (D) :

“Regulation and control of such monopolies including trusts and cartels, as may have been developed in any industry. (e.g., cement, shipping, electrical, safety match).”

Recommendations :

1. On principle we are opposed to monopolies in private hands, though we recognise that in certain industries it may be inevitable to set up or combine manufacturing units for the purpose of economic production or selling organisations with a view to preventing profiteering on the one hand, and unhealthy competition on the other. In all such cases the units or combines should be under adequate State supervision and control. Where separate businesses seek to amalgamate or otherwise work as trusts, pools or cartels or price fixing organisations, all their arrangements should be subject to State supervision and control.

On principle we still adhere to the above recommendation of 1940 in spite of inefficiency, corruption and communalism and worse than all, general demoralisation of the public arising from several of the control measures during war-time, most of which continue even now due to centralisation of very extensive powers in the State similar as in a monopoly in private hands.

Term of Reference (E) :

“Housing of industries in the appropriate buildings, equipment with plant and machinery ; size of operations ; rationalisation of existing industries, admitting of such improvement.”

Recommendations :

1. We recommend that so far as possible, new industrial concerns should be located in open areas, but for this purpose it is desirable that the local bodies should place at the disposal of industries suitably developed areas possessing such facilities as transport, power, water, etc., necessary for the efficient running of the industry. Where, for reasons of public well-being it is regarded absolutely necessary to remove congestion, the relative costs of removing the factory from the congested area to an open space on payment of compensation, should be examined.

2. We recommend that all reasonable measures for the improvement of conditions of work inside the factory such as the elimination or reduction to a minimum of dust, trash, smoke etc.,

regulation of heat, moisture, etc., provision of light etc., should be adopted in all industrial concerns.

Term of Reference (F) :

• “Marketing of produce, both in India and outside, due regard to the maintenance of a reasonable stability of prices.”

Recommendations :

1. In foreign countries with which India has substantial trade, Trade Commissioners of Indian nationality should be appointed to act as Liaison Trade Officers to disseminate information regarding Indian produce, to facilitate transactions between buyers and sellers, to make periodical reports regarding the trend of markets in their areas, and to help in every possible way the concerns engaged in the buying or selling of Indian goods. In the appointment of these Trade Commissioners their knowledge of industry, trade and commerce should be the primary consideration.

2. When any foreign country has established quota arrangements, or other restrictions in their dealings with India, similar restrictions may be established from the Indian point of view, wherever it is necessary. Clearing agencies for any such purposes must be established, so that the whole of the foreign exchange arising out of trade operations passes through the hands of the State, and may be used by the Reserve Bank as and when it may be necessary for State purposes.

3. Qualified men should be periodically sent out in the principal consuming or potential markets of Indian goods to make an extensive survey of the changing conditions of the market and to submit reports thereupon. Where Indian produce is exported, efforts should be made to see whether the article manufactured from such material cannot be exported from India in a manufactured form, or whether some intermediate transformation of the raw material, so as to add to its value before it leaves India, cannot be achieved.

4. Museums should be established both in India and abroad for the display of the raw materials and finished goods of Indian manufacture. In each case special emphasis should be laid on the type of articles which are generally consumed in that centre, or for which there is a likelihood of good demand.

5. Standardisation of weights and measures on All-India basis should be carried out at an early date, so that a uniform system of weights and measures is applicable to the whole country. For this purpose an institution similar to the British Standards Institute should be established at a central place. If other conditions permit, the Metric system should be adopted for this purpose.

6. Transport and storage facilities including cold storage, both in transit and warehouses, should be provided, extended and improved for Indian produce of all kinds according to its requirements.

7. Arts and crafts emporiums for the encouragement of local industries, especially small-scale industries, should be provided by the Provincial Governments and Local Bodies. .

8. The grading of all agricultural produce in order to ensure proper grade and uniform quality should be completed at an early date, and measures such as the Indian Agricultural Produce Act, Indian Fruits and Drugs Act, etc., should be passed and applied wherever necessary. Measures on the lines of the Cotton Ginning & Pressing Factories Act should also be passed and enforced to check malpractices and adulteration of superior with inferior varieties.

9. It is desirable to institute a system of licenses for all businesses, and such licences may be issued by statutory bodies. Amongst the conditions attached to such licences may be one, which would render the licence liable to cancellation, if the conditions laid down for the benefit of the public continue to be violated. In our opinion, the regulation of middle-men's profit should be resorted to only when the phenomenon of profiteering is noted by the State. But the number of intermediaries between the producer and consumer should be reduced to the minimum necessary for proper distribution.

10. Regulated markets should be established at a large number of places, at centres which are readily accessible to the neighbouring villages, and means of communication which should be open and serviceable all the year round should be provided between these markets and villages. .

11. Railway freights and classification should be examined from the point of view of marketing and wherever the incidence of freight adds considerably to the transport charges and costs as a drag on the produce, the freight should be reduced by an appropriate amount. (See 2 on page 95)

12. Decimal currency will be a definite improvement particularly so if currency varies in Provinces.

Term of Reference (G) :

"Protection, encouragement, assistance or safeguard of such industries by the State in an appropriate form, and to an adequate degree ; particularly against international combines ; consideration of the fiscal policy of the country."

Recommendations :

1. Industrial concerns or enterprises with international affiliations should be subjected to rigid State supervision and

control, and should be debarred from enjoying the benefits of aid, subsidies or purchases by the State or Local Bodies. In respect of international combines with large resources and importing their products into India, we recommend that Indian industry should be protected by adequate import duties, and where imports into India take the character of dumping they may be stopped altogether.

Terms of Reference (H) & (I) :

- (H) "Industrial legislation, providing for control and supervision of industry, standardisation, maintenance of efficiency, rationalisation of work, regulation of markets, etc., patents (and copyrights), licensing and general policy regarding mining concessions."
- (I) "Legislation, regarding relations of employer and workmen, including the maintenance of industrial peace, together with ways and means for ensuring it."

Rationalisation may be put through in industries where the benefits of bringing the article within the reach of a large number of consumers and producers of raw materials outweighs the disadvantage of unemployment. In the matter of rationalisation, its effects on employment, as well as the well-being of the community as a whole should be taken into consideration, and it should be carried out with regard to all the working conditions without causing disproportionate unemployment. Rationalisation should not be restricted in any particular unit, unless it is similarly restricted in the same industry all over India.

In an unplanned economy as at present, prices of material and wages of labour are very largely governed by supply and demand. Since some years in the Province of Bombay only wages and work allocation on machine basis which are not uniform in different parts of the Province, cannot be altered on the previously prevailing rates and conditions except as prescribed by the Bombay Industrial Disputes Act. As conditions of certain work have not still been standardised even in the same centre, earning and units of work per worker vary. Even where conditions of work are favourable and without undue fatigue, a worker can give a bigger output and earn higher wages, it is not possible to provide for us until an agreement is arrived at between workers and employers. Under the existing system the sympathy of the public is very naturally on the side of the worker. Under unplanned economy, saving in cost to an industrial unit or to the industry increases the margin of profit of the manufacturer, and does not appreciably benefit the worker or the consumer. In a planned economy the object will be to give the largest benefit to

the community, after giving a reasonable return to those who find the capital and manage the industry and to the workers. A lower level of prices of consumption goods for the mass of population would improve their standard of living. In respect of conditions of work and social security of workers, it has been laid down by the N. P. C. that India should compare favourably with the more advanced foreign countries. While it should be so, it is equally necessary that the benefit of reduced cost of production should largely pass to the consumer. The standards of discipline, output in units and rationalisation should also, subject to adjustments for differences in conditions, compare favourably with those in foreign countries which are taken as models for conditions of work and social security.

This brings us to the very important and difficult question of the extent to which time and labour saving machinery, appliances, devices and systems should be adopted under a Planned Economy. After careful consideration we are of opinion that earnings in terms of real income based on purchasing power, together with cost for measures of social security borne by the employer, the worker or the State or all or one or more of them, and calculated on the estimate of these to be reached at the end of ten years after the Plan comes into operation, should be taken as the basis for calculating labour cost. Unless saving in labour cost is negated by interest and depreciation on the additional cost of installing time and labour saving plant and equipment, there would be no meaning in curtailing employment as it would not result in any benefit to the consumer. Considering that employment has to be found for a very large number of men, we are inclined to go further, and *recommend that we do not favour installation of more expensive time and labour saving machinery and appliances unless the net saving on increased labour cost does not exceed 20% of the savings after providing for interest and depreciation on more expensive time saving plant and equipment.* But in respect of consumption goods falling within the prime necessity of life, such as clothing, sugar and building material, we do not favour such a handicap of 20% merely to provide employment for a larger number of workers.

In Appendix VIII a statement is given on a recent comparison of number of men employed in England, America and India in textile mills. The information about the Indian Mills that is taken does not represent average conditions. The particular Indian Mill has been working for more than 60 years; and in the present unsatisfactory conditions in the absence of standardisation of musters and wages in all the departments in Ahmedabad, the number of men employed for similar work by mills which have come into existence since 1930 is less by nearly 8 to 10% overall.

The Bombay Industrial Disputes Act has been under oper-

ation for some years. It has very largely reduced strikes, regulated terms of employment and provided machinery to settle differences. But when large numbers of men are involved and there are rival labour unions as in Bombay, there is a real difficulty to prevent illegal strikes. There have been several strikes without a valid cause.

Increase in earnings may be responsible for increase in absenteeism and in lowering quality and quantity of outturn. So unless workers can look forward to a certain standard of living being maintained, their general education and outlook undergo a change for the better and labour unions take active and efficient measures to increase efficiency, rationalisation and discipline, there cannot be any improvement on the present position. It may be stated that a Labour Union that attempts to take measures which are not appreciated by the members such as for better discipline and efficiency, would run the risk of losing its membership and the members joining rival unions.

Should a Government in office also run, manage and control Labour Unions ?

Under the present Trade Union system, a minority not only may not receive the support of the Union in respect of its just demands, but the majority in its own interest may not concede just and reasonable demands of the minority. A few instances may not be out of place. Those who work permanently on night shift have been doing it for years in some industrial centres ; there is no system of alternating night shift with day shift. Day workers being in a majority do not agree to alternate shifts.

Harijans are not admitted because they are Harijans, in certain industries or sections, both by Hindus and non-Hindus acting together. To overcome the present short comings we take the liberty to suggest that a Special Committee should go into the working of the Trade Unions and of the measures adopted for the regulation of industrial disputes. Such a committee would be charged with recommendations to suggest modifications. Measures taken to regulate relations between employers and employees may in a modified form also apply for differences between major and minor groups of workers in certain matters.

Efficiency would greatly increase if workers have a certain amount of useful general education and technical training. We therefore recommend arrangements being made for such training.

Workers should have comfortable houses and facilities for useful utilisation of their spare time. Good houses would put up general standard of behaviour, cleanliness and give a healthy and enlightened outlook on life. More in India than in other more economically or socially advanced countries, it is difficult to get one's due without fighting for it. From infancy upwards, the present social and political organisations in the country make

it difficult for most persons to do otherwise. So unless there is a radical change in the outlook from top to bottom from those in charge of the Government of the country and life and conveniences of life are better organised and regulated and right training is given from infancy, there cannot be real improvement in important aspects of life including efficiency.

In spite of there being a separate Labour Sub-Committee, in view of the close connection between Employers and Employees for efficient running of industry, we have taken the liberty of drawing pointed attention to some important deficiencies. We suggest that our observations may be forwarded to the Labour Sub-Committee for consideration. One effective way of avoiding illegal strikes would be to license workers and such as strike or act contrary to the provision of the regulations that Government may lay down, be made liable to suspension or cancellation of the licence.

We do not make recommendations on some other terms of our reference, as there are Sub-Committees of the National Planning Committee dealing with them.

In order to conserve capital and to keep down purchases up to the time that price of capital goods comes down, to increase production of consumption and capital goods in India, and to find employment for a larger number of men, we recommend that existing plants should work for the longest time possible to increase production primarily to meet indigenous demand and also for normal export. Additional housing for the larger number of men to be employed may for several years present real difficulty. But it should not be difficult to increase units of work per worker to an extent which will not deteriorate his health and his well-being. By so doing, that is, extending rationalisation, wages and earnings can be put up without increasing cost and a certain number of men can be found for additional shifts from the existing shifts.

We recommend that a reasonable part of the gross profits realised by an industrial concern should be ear-marked for depreciation before any other allocation.

Term of Reference (J) :

"Defining general policy affecting competition and co-ordination between cottage industries and industries worked by power-driven machinery."

Recommendations :

We feel that by judicious adjustment it is possible to establish a mutually beneficial co-operation between large scale and cottage industries. We favour, therefore, looking at the constituent parts of an industry, and apportioning production in such

a manner between large-scale and cottage industry as to provide for legitimate expansion of both and the utmost contribution to national well-being. We recommend that there should be a permanent Board of Research to go into the changing economics of large scale and cottage industries, including its reactions on those employed in the cottage industry, and a much large number of consumers as a result of which the State may decide their respective scope.

At a meeting of the Chairman and Secretaries of the various Sub-Committees held at Allahabad on August 13, 1939, it was decided that Sub-Committees dealing with allied subjects should hold joint meetings whenever required. The following list of Cottage Industries, not intended to be a comprehensive one, but prepared tentatively with a view to mentioning some industries which are or may be both cottage and large-scale, where there may be a conflict or overlapping between these two methods of production, was considered by the N. P. C. No decisions were taken on the list. It was resolved to forward it to the Sub-Committees concerned for their consideration.

LIST OF COTTAGE INDUSTRIES

1. Textile (silk, wool, and cotton), cotton spinning and weaving especially up to 30s. (A)
2. Dyeing and Calico Printing.
3. Cotton Ginning and cleaning for handspinning except pressing.
4. Oil crushing. (A)
5. Soap and Toilet articles. (E)
6. Furniture and Timber works.
7. Paper for use as Stationery (except paper for newspapers, art printing, for wrapping and packing etc. etc.) (B)
8. Sugar. (A)
9. Rice husking and milling.
10. Brass, copper and silver-ware.
11. Tallow, Guts and Glue.
12. Tanning and shoe-making. (C)
13. Pottery and Ceramics phials. (C)
14. Glass Bangles.
15. Beads.

16. Polishes, paints & varnishes.	(C)
17. Locksmithy.	(C)
18. Nails.	(C)
19. Blacksmithy.	(C)
20. Cutlery.	(C)
21. Hemp, coir and Jute.	
22. Bristles and Fibres.	
23. Bricks.	
24. Tiles.	(C)
25. Gold and Silver threads.	
26. Salt.	
27. Toys.	
28. Umbrella.	
29. Gums.	
30. Resins.	
31. Matches.	(C)
32. Carts.	(D)
33. Country crafts.	(D)
34. Tailoring.	(C)
35. Embroidery.	
36. Hosiery.	(C)
37. Buttons.	
38. Carpets.	(C)
39. Confectionery.	(E)
40. Fruit Preserves and Syrups.	(E)
41. Dairying.	(E)

We recommend that :

- (A) Final relative economy should be ascertained of cottage and factory scale operations.
- (B) For large-scale use defects arising out of uniform quality and ink-spreading as in blotting paper will have to be remedied.
- (C) Not for all classes, and for various uses.
- (D) Only certain parts.
- (E) An enquiry on hygiene and health considerations may be necessary.

We made an effort to get helpful information from the Organiser and Secretary of the Village Industries Association, Maganwadi, Wardha. A list of the various industries within the

scope of our Sub-Committee was forwarded to him. He was requested to let the Committee know :

- (a) Which of the Industries in his opinion would interfere with the group of Village Industries.
- (b) The selling price of the village-made as compared with that of a similar article manufactured by a large-scale industry.
- (c) Calculating backwards from the price of a finished article, the price which can be paid for respective raw materials after making due allowance for reasonable manufacturing cost and profit when worked as a village industry.
- (d) In the case of such industries as sugar manufacture, oil pressing etc., the yield percentage of village industries compared with the large scale industries.

We give a summary of his reply :

Most of the items stated in the list were capable of being made under cottage conditions. The only exception may be hair and other material beltings for machinery, enamelled hardware, agricultural implements and machine tools, glass bottles and phials, funnels, globes and glass parts of lamps, scientific glassware, sheet and plate glass, electric lamps and parts and accessories thereof.

In reply to the three queries, he stated :

- (a) price is not an important factor in National Planning.
- (b) calculating backwards is a capitalistic method of calculation and inhuman in application. He is amazed as to how any intelligent person could use these criteria, and refused to play a fraud on the public by being a party to such reasoning.
- (c) there were many more valuable considerations than mechanical efficiency ; as these have been ignored, it would not be fair to deal with this query.

In view of the above replies, it was considered unnecessary to make further effort for a joint meeting of the Manufacturing Sub-Committee with the Cottage Industries Sub-Committee..

We, however, think that it is essential to go into the economics of each cottage industry. If sugar is taken as a cottage industry, and is to be developed as such and protected from competition of large-scale manufacturing industry, then in the interest of the consumer it would be necessary to find out :

- (a) Recovery percentage and price per maund of sugar that will be realised.

- (b) Reasonable manufacturing cost and profit to the manufacturer, and maximum amount that will be left to be paid for cane.

To make the position clear, we give an example : Figures taken are only hypothetical. If recovery of sugar from sugarcane in hand-made process is 5% and price for sugar is controlled at Rs. 12/- per maund, then 100 maunds of cane will give 5 maunds of sugar which will realise Rs. 60/-. If manufacturing charges with reasonable profit to the manufacturer come to Rs. 30/- per 100 maunds of cane, then Rs. 30/- will be available to be paid as price of 100 maunds of cane. So the grower will get 4.8 annas per maund of cane. In a large scale sugar factory, if recovery is 10% and price of sugar is Rs. 12/- per maund, then sugar will fetch Rs. 120/-, and if manufacturing charges are Rs. 25/- and manufacturers profit Rs. 10/- then the amount available for payment for sugarcane will be Rs. 120/- minus Rs. 35/- equal to Rs. 85/-, that is equal to 13.6 annas per maund of cane. So in the latter case, the cultivator will get more for his cane than in the former case, and for the same quantity of sugar the area under cane cultivation for the former will have to be twice as much as for the latter. Persons employed in cane cultivation will far exceed the number employed in manufacture of sugar. Other factors probably equal or more important come into consideration. But an enquiry on some such line is necessary. If the sugar left in begasse (cane left over after crushing) gives a benefit as cattle food which equals the loss in sugar recovery, then such benefit would, of course, come into calculation. So, we recommend such a relative economic enquiry to be made in respect of each large scale manufacturing and cottage scale industry, with a view to find out the final recovery and ultimate efficiency in the larger interest of growers and a still larger number of consumers.

When most land is irrigated so as to give two crops, and employment can be provided to others, hand-spinning is not likely to be economic or profitable except when carried on simultaneously while performing other work, such as during waiting period by those who graze cattle, office peons between duties, and by family members while sitting idle and conversing. But hand weaving or by one or two power looms driven by electricity in cottages may be profitable from machine-spun yarn. We recommend cotton spinning mills to be started by the State for the supply of yarn at cost price for hand-weaving and for warp and weft yarns to be so processed as to give the greatest efficiency in hand-weaving and to minimise un-economic work by the weaver. We expect that the benefit of co-operative societies for purchase of raw material and marketing of finished products is fully recognised, and hand-weavers will work through co-operative societies. We also recommend possibilities of certain industries

which are partially large scale in respect of certain processes, but which can give out material for cottage scale operations to be also investigated. We have in mind the porcelain industry where the material would be prepared in a factory and be taken by cottage scale workers along with the moulds ; and they would deliver replicas in clay to be baked in a large scale oven in the factory. In the selection of industries, it will have to be borne in mind that the number of those who can get advantages from cottage scale work far exceeds the number employed in the factory for some of the processes. It would require a special committee to investigate and make a list of such industries.

Term of Reference (K) :

“ To survey the present deficiency of technically trained men in all branches of industry and suggest measures for making good the deficiency. ”

Recommendations :

1. We recommend that suitable facilities should be provided in each Province, with special regard to the needs of the Province in the matter of industry and commerce, for training sufficient numbers of men for all kinds of posts and work in industrial and commercial concerns. In this connection special regard should be paid to the training of men for the higher posts, who can design new types of machinery, erect large factories, undertake original industrial investigations with a view to increasing efficiency and reducing wastage and cost, and possess initiative and organising capacity. Where such facilities already exist, they should be expanded in the appropriate manner ; where no such facilities exist, new departments, schools or colleges should be opened.

2. Apprentice schemes for the training of workers in different industries should be initiated in each area. These schemes should be worked out to give the best results with due regard to the special interests of each industry.

3. In the General Term of Reference for the various Industries Sub-Committees, Scientific and Technical Research are not included. Still, considering the importance of such research we are in full agreement with the directives given in para 6 of the Instructions which we quote below :

“ It is essential that much greater attention should be paid to making scientific and technical research an integral part of Planned Economy. Universities and research institutions should be organised to permit of fundamental and basic applied research on the widest possible basis being undertaken in the country. Further, industrial research should be comprehensively planned and linked with the develop-

ment of industries, and industrial research organisations created best suited to the needs of individual industries."

The above may be taken as our recommendation.

The immediately following directive of the N. P. C. we put forward as our recommendation ; but slightly amended to cover specialised technical training we give below our recommendation:

To put research and specialised technical training actively on a proper basis, highly trained personnel with first-class scientific and technical ability in progressively growing numbers will be needed. To produce these workers, two things require to be done, (i) to establish as rapidly as possible institutes in India which can give the highest type of scientific and technical training, and (ii) to have men trained abroad to meet the scientific and industrial needs of the country in the very immediate future. For the first purpose, a few institutes, to begin with only one or two, on the pattern of the best in America such as M. I. T. should be established. Failing Indian personnel for the staff, highly qualified foreigners may be engaged on a contract basis, and selected Indian personnel from scientific and technical departments may be sent abroad to replace the foreigners engaged in the initial stage. For the second purpose, for industrial projects to be undertaken the most suitable workers should be sent abroad for specialised training. It should be the aim to establish and run such institutes in India as would make it unnecessary to send Indians abroad for scientific and technical training after a few years :

4. In order to absorb the workers and others from the industrial institutes, workers classes etc., it should be made compulsory on each industrial concern to employ such workers and others in preference:

5. We recommend the establishment of an Institute :

(i) for Time and Motion Study and of Fatigue. It should lay down conditions and standards of work.

(ii) an Institute of Industrial Psychology.

The services of the above and such other Institutes should be available to industry. The present system of researches in different branches being carried on independently, such as medical, economic, agricultural, statistical, scientific nutrition, health and hygiene and industrial, in which we include all the three sections, viz., large scale, medium and cottage scale industries, can be improved upon. There is a distinct advantage if there is a Central Institute of Research and all research is undertaken by the Institute with separate departments and sections as may be necessary. This will co-ordinate research, increase application value, prevent overlapping and duplication, provide suitable at-

mosphere and competent personnel to discuss results and also reduce initial and recurring expenditure. An All-India Industrial and Scientific Research Council should be established for the purpose of :

- (a) co-ordinating the work of investigations relating to industry,
- (b) promoting original work, and
- (c) giving assistance in the matter of solving industrial problems.

Scientists and Technicians should be given their due share in the administration and personnel of this Council. Sufficient funds should be placed at its disposal to enable it to achieve its objects. The Reports and Bulletins of this Council should be published in English and in such Indian languages as may be regarded useful for each industry or area.

Term of Reference (L) :

“To consider measures for manufacture of the necessary machinery and apparatus, and submit notes thereon to the Engineering Industries Sub-Committee.”

Recommendations :

1. The manufacture of machinery of all types should be undertaken in India only after a careful survey of the present requirements and resources, and should be expanded progressively in proportion to our industrial development in the future. For this purpose, an immediate survey of the following materials which are essential for the manufacture of machinery should be undertaken, and this survey should be repeated periodically to assess the extent to which as a result of the fullest possible exploitation of our resources, India is able to produce the materials required for the manufacture of machinery :

Antimony	Manganese
Asbestos	Mercury
Asphalt	Molybdenum
Bauxite	Nickel
Camphor	Phosphate-rock
Cement	Platinum
Chrome Ore	Potash
Cobalt	Rubber
Copper	Salt
Cryolite	Sulphur
Felspar	Tin
Graphite	Tungsten Ore
Iodine	Vanadium
Iron ore	Vanadium Ore
Lead	Zinc
Magnesium	

2. An All-India institution, like the National Physical Laboratory, should be established at a central place at an early date in order to maintain standards, test instruments and apparatus, and undertake original research in applied science, especially relating to the design and manufacture of machinery and capital goods.

Sd/- AMBÁLAL SARABHAI,

Chairman.

17th April 1946,
P. O. Box No. 28,
Ahmedabad.

Appendix I.

I. HOUSEHOLD ARTICLES

A. HAIR, FIBRE, COIR, etc.

1. Hair Belting for Machinery.
2. Belting of other materials (including coir).
3. Bristles and Fibres for brushes.
4. Paint and Varnish brushes.
5. Hair of all kinds.
6. Manufactures of hair (other than toilet requisites).
7. Other brushes (excluding toilet).
8. Brooms.
9. Cordage (ropes).
10. Coir.
11. Mats and matting except coir.

B. WOOD

- (a) Canes, etc.
- (b) Furniture.
- (c) Paraffin Wax.
- (d) Wood Polish.

C. METAL

- (a) Cutlery:—Pruning Knives & other kinds.
- (b) Hardware (excluding cutlery & electroplated ware).
 - (i) buckets of tinned or galvanised iron.
 - (ii) domestic hardware, other than enamelled iron-ware.
 - (iii) enamelled ironware.
 - (iv) implements & tools other than agricultural implements and machine tools.
 - (v) lamps :—metal, parts of lamp other than glass.
 - (vi) safes and strong boxes of metals.
 - (vii) stoves.
 - (viii) other sorts.

D. EARTHEN AND CHINAWARE etc.

- (a) French Chalk.
- (b) Earthenware, other than sanitary.
- (c) Porcelain ware other than electrical.

E. MATCHES, SAFETY AND OTHER SORTS

F. CLOCKS & WATCHES AND PARTS THEREOF

II. TEXTILES & RELATED INDUSTRIES

- A. Cotton Belting for machinery.
- B. Bobbins.
- C. China Clay.

- D. Oil cloth and floor cloth.
- E. Starch, Dextrine, and Farina.
- F. Tallow and Stearine ; other animal fats and greases.
- G. 1. COTTON :—Fine twist & yarn, Grey, white, coloured,
mercerised, Piecegoods, printed or dyed,
Umbrella cloth.
 - i. Lace and net.
sewing or darning thread.
 - ii. Flax, raw and manufactured.
 - iii. Haberdashery and millinery.
 - iv. Silk, raw and manufactured.
 - v. Wool, raw and manufactured.
 - vi. Artificial silk, yarn, hosiery & piecegoods.
 - vii. Staple fibre & yarns.
 - viii. Water-proofing.

III. TOILET ARTICLES

- A. Toilet Brushes.
- B. Buttons of all sorts:—metal & non-metal.
- C. Jewellery (excluding imitation & precious stones).
- D. Essential Oils.
- E. Non-essential Oils.
- F. Perfumery.
- G. Soaps.
- H. Toilet requisites.

IV. GLASS ARTICLES

- A. Glass & glassware :
 - 1. Bangles.
 - 2. Beads and false pearls.
 - 3. Bottles and phials.
 - 4. Funnels, globes and glass parts of lamps.
 - 5. Scientific glassware.
 - 6. Sheet and plate.
 - 7. Tableware (including decanters, tumblers etc.)
 - 8. Other glassware.
- B. Lamps : glass, parts of lamp other than glass.
- C. Instruments, apparatus & appliances and parts thereof.
 - 1. electric lamps and parts thereof, electric glow lamps.
 - 2. gas filled electric bulbs.
 - 3. vacuum electric bulbs.
 - 4. electric bulbs for automobiles.
 - 5. electric bulbs for torches.
 - 6. electric bulbs of other sorts.
 - 7. parts and accessories of electric lamps, batteries for flash and for others.
 - 8. optical.

V. PROVISIONS

- A. Saffron, real (agric.), artificial.
- B. Gelatine.

- C. Fish Oils.
- D. Sugar.
- E. Tea & Coffee, Cocoa and substitutes.
- F. Tobacco : manufactured-Madras, Hyderabad (cigars, cigarettes, tobacco for pipes and cigarettes, and other sorts.)
- G. Biscuits and cakes.
Confectionery and sweets.
Prepared foods (except milk products.)
- H. Other provisions.

VI. LEATHER MANUFACTURES

- A. Leather belting for machinery.
- B. Boots and shoes.
- C. Barks for tanning.
- D. Cochineal.
- E. Cutch and gambier.
- F. Leather manufactures (excluding boots and shoes.)
- G. Leather polish.

VII. RUBBER MANUFACTURES

- A. Pneumatic Motor Covers.
- B. Pneumatic Motor tubes.
- C. Pneumatic Motor Cycle covers.
- D. Pneumatic Motor Cycle tubes.
- E. Pneumatic Cycle covers.
- F. Pneumatic Cycle tubes.
- G. Solid Rubber tyres for motor vehicles.
- H. Other manufactures except apparel, boots and shoes.
- I. Boots:—rubber soles, and all rubber.
- J. Medical and Hygienic Articles.

VIII. STATIONERY.

- A. Glue.
- B. Paints and Painters' material and drawing material.
- C. Paper and pasteboard.
 - (a) 1. Packing & wrapping paper.
Kraft, including imitation kraft.
Brown wrapping, other sorts.
Coloured machine glazed pressings.

Manilla, machine glazed or unglazed, and sulphite envelope.

Fancy, including embossed paper.

Oiled, waxed and other waterproof wrapping, and other sorts.

2. Writing paper and envelopes, azurelaid or wove and ledger, cream, other sorts of writing paper, boxed stationery.
3. Blotting paper.
4. Other kinds of paper.

(b) Pasteboard, millboard & cardboard.

1. Strawboard.
2. Other kinds.
3. Manufactures of pasteboard.

(c) Paper making materials

1. Pulp of wood.
2. Rag and other materials.

(d) Pens, Pencils & Fountain pens.

D. Ink for printing & lithography.

E. Playing cards.

IX. OFFICE APPLIANCES

1. Duplicators, Punching machines, stamps, ink pads, etc.

X. PLASTICS

- A. Made from Shellac and shellac powders.
- B. Made from synthetic products of Casein, Formaldehyde, Urea, etc.

XI. MISCELLANEOUS

- A. Asbestos.

Manufactures :

asbestos packing, sheets, slates, etc. of asbestos cement, other manufactures.

- B. Cork.

- C. Fireworks.

- D. Articles made of horns.

- E. Ivory (manufactured & unmanufactured).

- F. Sticks and whips.

- G. Umbrella and umbrella fittings.

H. Wax of all kinds, other than paraffin wax (including candles.)

I. Toys.

J. Other sorts of games & sports.

While we regret the failure and the delay of some of our collaborators, we greatly appreciate the work of those persons who obliged us by preparing and sending in really valuable information in spite of their other duties and work. The memoranda sent in by these collaborators are given in a summarised form as Appendix III. *

The question of the suitable location of new industries and areas for the development of the existing industries also engaged the attention of the Sub-Committee. It is in fact the term of reference (a) for this Sub-Committee. It was felt that it would be useful to enquire from the various Provincial Governments and States as to which of the industries in our list were specially suited for development or extension in their areas. Accordingly the list of the industries that we had prepared was sent round to all the Provincial Governments and the collaborating States.

Appendix II. deals with the names of collaborators and industries assigned to them.

Appendix III. deals with the items of enquiry, on the various industries.

Appendix IV. deals with the details of collection of information on manufacturing industries through collaborators.

Appendix V. deals with the import values of the various Articles imported into India.

Appendix VI.

Appendix VII. contains the minutes of the various meetings of the sub-committee.

These Appendices have been omitted here, as unnecessary for the purpose of the Report.

Appendix VIII

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Manufacturing Industries

AMERICA			ENGLAND			An AHMEDABAD MILL			
Machine	No. of Machines	Total Spindles	Operatives	No. of Machines	Total Spindles	Operatives	No. of Machines	Total Spindles	Operatives
Slubbing.	5	500	5 Tenters No Doffer	4	400	4 Tenters No Doffer	5	400	5 Tenters 3 Doffers ***
Roving.	21	3,360	7 Tenters 1 Doffer	26	4,680	13 Tenters 6 Doffers	20	3,600	10 Tenters 10 Doffers ***
Ring.	91	24,636	18 Tenters 5 Doffers	58	26,448	26 Tenters 16 Doffers	58	22,040	58 Tenters 33 Doffers ***

Spindles minded per head

AMERICA			ENGLAND			An AHMEDABAD MILL			
Machine	Spindles per Tenter	Spindles per Doffer	Spindles per Tenter & Doffer	Spindles per Tenter	Spindles per Doffer	Spindles per Tenter & Doffer	Spindles per Tenter	Spindles per Doffer	Spindles per Tenter & Doffer
Slubbing.	125	No. Doffer	No. Doffer	100	No. Doffer	No. Doffer	80	133.3	50
Roving.	480	3,360	420	360	780	246.3	360	360	180
Ring.	1,368.6	4,927	1,071	912	1,653	587.7	380	667.8	242

* for 31s Count.

** Adjusted for 31s Count.

*** Doffing Doffers only.

EPILOGUE

SUMMARY OF DEVELOPMENTS SINCE 1940

Hardly had the National Planning Committee begun to function actively when War broke out, and the need for some sort of a planned programme of production began to assert itself against the scoffers and sceptics of the then Government of India. In the first three or four years, however, of the war, this need was realised in an *ad hoc*, spasmodic, uncoordinated manner. It was not till 1942 when the war was at its worst, and the Allies' demands for supplies from India to carry on the struggle in the East effectively against Japan too insistent and acute to be met by unorganised, uncoordinated, and almost chaotic conditions in India, that the Government of India at long last woke up to the need for planning.

Forced by the War to attend to planned production, Government set up new Departments, and required these to organise the provision of supplies of all kinds both for the Military and the Civil Population. These supplies, however, not being all available in the country in the required measure ; and not being obtainable from abroad because of the lack of shipping, had to be produced on the spot in India. The imperative war needs made price a secondary consideration. The result was inevitable. Prices began rapidly to rocket, partly due also to inflation in the paper currency for lack of material payment for these supplies to Britain and her Allies. Stimulated by these, new industries were started and old expanded, regardless of economic considerations which were overriding in normal times ; and these were but loosely coordinated solely from the standpoint of meeting war demands. Planning began, therefore, with a view to meet urgent immediate needs. It took a variety of forms ; Price control in regard to a number of articles of daily necessity ; rationing supplies, regulating production in volume as well as in quality ; and restricting growth or expansion of industry by Control of capital issues. These measures being themselves uncoordinated and taken independent of a comprehensive planned programme, brought about their own evils in the shape of black markets, and war profiteering, and corruption which made them the very negation of scientific planning ; and the measures seemed in the aggregate scarcely to justify themselves.

Because of these factors, those who were in a position to provide supplies needed for carrying on hostilities, or to meet the more urgent needs of the civilian population, reaped a rich harvest of steadily increasing profits, which were but only partially taken over by increasing taxes on incomes and profits. The rates of taxation were seemingly high ; but, the high level was illusory because of the innumerable ways in which taxes could be

fraudulently avoided, or legally evaded. In any case they did not operate as a deterrent to industrial expansion. The result was a steadily accumulated surplus that took the form of time or current account deposits in Banks, that now exceed one thousand crores of loose cash in the Scheduled Banks, and more still in the Imperial and Non-Scheduled Banks. This is liquid capital lying idle for want of suitable investment. The cry of lack of capital for developing promising Services or Utilities in this country, not to speak of the sources of primary production like Agriculture, Forestry or Mining, is without any great foundation.

The Banks, it may be added incidentally, have multiplied, both in number and in branches, to an alarming degree. Because of the heavy deposits for which they are unable to find profitable investment, nearly two years after the end of the war, signs are visible already on the horizon that rocks and shoals and dangerous currents lie ahead. Attempt is being now made to regulate Banking by a comprehensive legislation ; but that also is not part of a comprehensive National Plan, giving its proper place to the financing machinery. The proposed Legislation thus provides more than one ground for just criticism.

These measures of control, supervision, or regulation,—which ought to have come at the end ; but which began the programme of official planning in this country, were only forerunners of more deliberate and systematic planning. Even before the Department of Planning and Development was set up, the various Departments of Central Government felt the need of making their Plans to meet the situation affecting their Department in the post-war period. Once again, however, the departmental Plans were spasmodic, mutually exclusive, and not integrated into a common nationwide programme. Departments seemed to be mutually jealous of one another ; and still more of the Planning and Development Department ; and strove each to show the magnitude of its own needs and possibilities. In consequence the mere size of the amounts they demanded as necessary to carry out their several plans, sufficed to make them unpopular. The National Planning Committee, at its meeting in November 1945, took note of this position in the following paragraph of the Revised Instructions to Sub-Committees.

“The Sub-Committee took note of the plans for development, already reported to be in making, by various Departments of the Central Government, as well as by the several Provincial and State Governments. These plans, the Sub-Committee consider, are mutually uncoordinated, being *ad hoc* proposals without proper inter-relation as part of a common national plan of Development. Outlays have been proposed, or schemes suggested, for development of roads, education, public health, and the like, which, though

essential and indispensable, must be carefully correlated as part of a common scientific and integrated National Plan, if we do not desire a lopsided and unbalanced economy."

To bring these several Departmental Plans into line, as also to coordinate the plans which were being prepared at the instance of the Central Government by the various Provincial Governments as well as some of the States, the Government of India established a special Department of their own,—the Planning and Development Board,—and placed a former Indian Civilian, with considerable reputation for business experience and efficient administration, in charge of that Department. From its start, however, that Department seems to have met with little cooperation from the other Departments of Government, who considered planning for themselves as their exclusive right and privilege, the mildest attempt at all-round coordination by any body, including the new Department, as an indefensible invasion of their prerogative. The Planning and Development Department nevertheless went on, enunciating the Government's policy in regard to Industrial planning, and appointed panels,—29 in number,—to investigate the conditions of several industries. Some of these panels have not yet reported; and the integration of such recommendations as have already been made into a consolidated National Plan has yet to be achieved.

Meanwhile, after a year's existence, the Development Department itself was abolished, which had neither the status nor the authority to make for a comprehensive Plan. Though not all the Reports of the various panels have yet been published, a summary of those which have been, and which relate to the Manufacturing Industries in particular is appended below. These summaries are useful, not only as marking the growth of the idea of planned development even from the official standpoint, but also for some of the figures they give and the targets they suggest in regard to the optimum development of each such industry.

SUMMARY OF THE REPORT OF THE PANEL ON PAPER, PULP, BOARD AND CHEMICAL COTTON INDUSTRIES

Target of production

Significant progress has been made by the Indian paper industry during the war. The number of mills increased from 10 in 1938 to 16 in 1944, and the output of paper from 53,000 to 90,000 tons. Similarly the production of Board has increased from 8,000 to 24,000 tons. The Panel anticipate increased demand for both Paper and Board in the next few years, and they recommend therefore, a large expansion of the industry as shown in the table below :—

	Present indigenous production (tons) 1944	Target of indigenous production (tons)		Anticipated annual consumption (tons)	
		1951	1956	1951	1956
All types of paper other than newsprint	90,000	169,000	302,000	220,000	317,000
Newsprint	Nil	20,000	40,000	60,000	100,000
All types of boards including strawboards	24,000	75,000	119,000	75,000	119,000

Location of Paper and Board Mills

2. The principal seat of the Indian paper industry is the Hoogly district of Bengal where there are four factories which produce more than 50% of the present production. The remaining factories are more or less evenly distributed throughout the country. The Panel consider that a minimum economic unit for manufacturing ordinary classes of paper is one producing 8,000 tons per annum; and that existing units below this capacity should be encouraged to expand their production. They recommend accordingly that 40-50,000 tons of the projected increase of paper production, other than newsprint, should be allocated for the expansion of existing mills; but they think that in Bengal expansion of mills to produce the same varieties of paper as are being manufactured there at present should be discouraged.

As regards new mills, they recommend that no new ones should be set up in Bengal, but that the following areas should be recognised as suitable for their establishment :—

- (a) *Paper*. Madras, Bombay, Assam, Punjab, Central Provinces and Berar, Central Indian States, Rewa State, Eastern States Agency, United Provinces, Bihar (for cheap quality paper).
- (b) *Newsprint*. Kashmir, Tehri Garhwal, Punjab.
- (c) *Boards*. Bombay, Bengal, (near Calcutta), Madras, Central Provinces and Berar, Orissa, Punjab, United Provinces, Hyderabad State.

Nature of Government assistance required : Protection

3. The Panel consider that the projected increase of paper and board production (*other than newsprint*) can be left to private capital and enterprise; and that no direct financial assistance from Government will be needed. The present protection afforded to the paper industry should, however, be continued and its scope extended so as to include varieties of paper and board that are unprotected at present. The following assistance should also be given :—

Research

(a) A survey should be made of all cellulose raw materials and the Paper Pulp section of the Forest Research Institute, Dehra Dun, should be reorganised and expanded into a Pulp and Paper Research Centre (c.f. recommendations of the Panel on Rayon), the cost to be shared by Government and the industry.

Training

(b) In addition to technicians trained at the Dehra Dun Centre, at least 6 young Indians should be sent abroad every year for higher training.

Financial assistance for newsprint

4. The establishment of newsprint manufacture in India is most essential. The necessary soft woods exist in abundance according to the Panel in Kashmir, Punjab and Tehri Garhwal forests; and the possibility of their economic transport to the plains should be explored. In case private capital does not come forward to start this industry, the Panel recommend that Government should themselves take up newsprint manufacture.

Handmade paper

5. The Panel recommends that the production of handmade paper should be expanded by organising the industry on systematic lines for the production of special types of paper. Semi-mechanisation of some of the processes is essential.

Chemical Cotton

6. The Panel recommends that the production and standardised grading of cotton linters should be developed with a view to the manufacture of 5 million lbs. of chemical cotton per year. But the establishment of industries, which use chemical cotton, should come first (c.f. the report of the Panel on Rayon).

Government Orders

7. Government have accepted the Panel's recommendations regarding targets of production and location of mills, but have not yet passed any orders on the other recommendations.

SUMMARY OF THE PANEL REPORT ON ARTIFICIAL SILK AND RAYON

The report of this Panel has not yet been finalised. This is therefore a summary of the *draft* report.

Consumption

1. India's consumption of rayon rose from negligible quantities in 1923 to 60-70 tons per day immediately before the war. There was no indigenous production, and the bulk of the imports

of rayon, which in 1939-40 amounted in value to Rs. 459 lakhs, came from Japan. A steady increase in consumption is to be expected in the coming years owing to increase in population and a rising standard of living.

Target of Expansion

2. The Panel recommend the establishment of the rayon industry in India, where almost all the raw materials required for its manufacture are, or can be made, available in abundance. There is room, in their opinion, for 6 to 7 factories immediately, (each with a productive capacity of 10 tons per day), and for 4-5 more later. At least one factory should be for the manufacture of acetate rayon and the rest for viscose rayon. Capital goods worth about Rs. 10 crores will be required for these seven factories.

Location of Factories

3. The rayon factories should be evenly distributed throughout the country, with due regard for such essential factors as proximity of raw materials, markets for finished products, power, facilities for disposal of effluent, communications etc. The Panel consider certain localities in Bombay, C. P., the Punjab, Bengal Madras, Orissa, Mysore, Travancore, Rewa and Tehri Garhwal (or British Garhwal in the U. P.) as suitable for the erection of rayon factories.

Nature of Govt. assistance required

4. The Panel consider that the rayon industry should be under private ownership and control ; but they recognise that for its successful establishment in India, considerable Government assistance and initiative will be required. In regard to this they have made a number of important recommendations :—

(i) Cellulose is the main raw material required for the manufacture of rayon, and India is rich in cellulose bearing materials—cotton, bamboo, wood, bagasse, hemp, reeds etc. But extensive research and working out of technical details will be required before pulp of standardised quality and suitable for rayon manufacture can be prepared from these indigenous raw materials. The panel has, therefore, recommended that in the initial stages imported wood pulp should be used for rayon manufacture, but that at the same time the use of indigenous raw materials should be developed and encouraged. This will entail research work on bamboo and bagasse and organisation of the production of cotton linters. The panel recommend in this connection ;

(a) that an immediate survey be made through the Inspector General of Forests of all cellulosic raw materials in the country.

(b) that Government should set up a semi-commer-

cial pilot plant of a capacity of about 400 lbs. per day for preparing pulp and about 100 lbs. per day for spinning yarn. This plant will materially assist in the solution of technical problems connected with the establishment of the industry.

(c) that two Cellulose Research Institutes should be established, one concentrating on the manufacture of different kinds of pulp, and the other on the utilisation of these pulps in various consuming industries.

(ii) If sufficient private capital is not forthcoming to establish the rayon industry, Government should help by subscribing a certain percentage.

(iii) Government should promise to give adequate protection to the industry in the form of protective duties, bounties, a subsidy, or any other means.

(iv) Import duties on sulphite wood pulp, which may initially be used for rayon manufacture, should be remitted and duties on chemicals used for rayon manufacture appreciably reduced. The industry should also be relieved of import duties on machinery, until prices come down to a reasonable level.

(v) The Government of India should send 12 young Indians (6 chemists and 6 engineers) abroad every year for specialised training in rayon manufacture.

Other important recommendations

5. (a) In view of the large quantities of chemicals needed in the manufacture of rayon, the Panel have stressed the importance of close coordination of their recommendations with those of the Heavy Chemicals Panel.

(b) The Panel have also emphasised that foreign co-operation in technical matters will be essential in the initial stages.

Orders of Government

6. Government have decided that it is not necessary to lay down any targets of production as to indicate or restrict the location of new units. As regards the other recommendations of the panel, no orders, have yet been passed.

SUMMARY OF THE FINAL REPORT OF THE PANEL ON SILK

Scope of the Report

1. The Panel have considered in detail the problems of the Silk Industry, and have submitted their recommendations for the first quinquennium. The Panel have also outlined the expansion of the industry during the second and third five year periods. The enquiry has been confined to sericulture proper and has not dealt with the non-domesticated silk worms.

Present Position

2. The Sericultural Industry consists of two well-defined sections—(1) the production of cocoons and (2) the production of raw silk including utilisation of by-products,—the first of which is essentially a cottage industry and the second partly factory industry. The pre-war figure of consumption was 10 million lbs. of silk products per year, as against an indigenous production of $1\frac{1}{4}$ million pounds. During the war, owing to the urgent need of the United Nations for high quality silk, Government specially stimulated the development of filatures and this gave sericulture an impetus such as it had never had before. The rise in price of silk gave added impetus to the industry. The impulse is now exhausted ; and it is essential that the industry which is also an essential national asset should be safeguarded against collapse.

Target of Expansion

3. The target recommended for the first quinquennium is consolidation and retention of the present position of the industry. In the second and third five year periods, the industry should be expanded. At the end of fifteen years, production is expected to reach about 4 million lbs. of silk, which would still leave a deficit of over 11 million lbs. which would have to be imported, on the assumption that the demand will have increased by then to 15 million lbs.

Measures for consolidation of present position

4. The following are the measures proposed for the consolidation of the present position :—

(1) *Improvement of Mulberry cultivation.*—The Provinces should prepare five year plans for development of the industry which should include the establishment of mulberry farms for experimental purposes.

(2) *Adequate supply of disease-free seed.*—The total requirement of seed would be about 13 crores of layings requiring about 300 fully equipped grainages. Special seed cocoon areas should be organised for the efficient functioning of grainages. The seed organisation must be effectively controlled by Government.

(3) *Control of Silk Worm Diseases.*—Legislation for control of silk worm disease on the lines of that in force in the Mysore State should be enacted.

(4) *Improvement of Rearing, Reeling, Organisation and Marketing.*—Rearing should be supervised by an itinerant staff of trained men, and sericultural cooperative societies should be formed for the purpose of avoiding wastage of effort in the earlier stages of rearing. Reeling by the primitive method of "Charkas" should more and more be replaced by filatures.

(5) *Development of the Spun Silk Industry.*—The following measures are recommended :—

(i) For the purpose of the spun silk industry, India may be divided into two zones, north and south, and there may be but one spun silk mill for each area dealing with all the waste produced in it. These mills should purchase all the silk waste in their respective areas at a fair price ;

(ii) Exports of silk waste from India should be prohibited ;

(iii) The spun silk mills should be afforded all necessary priorities and facilities for manufacture and transport of machinery to expand their operation sufficiently to cope with their responsibility, and should be regarded as sole agents for the export of Indian silk waste and permitted to export only the unutilised surplus.

(6) *Organisation and Inter-Provincial and States co-operation.*—All branches of the industry should be organised and co-ordinated into a well-knit whole. There should be regional silk associations enjoying the support of the administrations and federated in an All-India organisation.

Location

5. The industry is at present located in Mysore, Bengal, Madras, Jammu and Kashmir. The Panel have not made any recommendations regarding location as the first five year plan confines itself primarily to the consolidation of the existing industry.

6. The Panel have made the following recommendations regarding Government assistance and control :—

(i) *Central Silk Board :* A Central Silk Board, which should be a statutory body, representing all Sericultural Provinces and States, should be set up to bring together the knowledge and interests of all silk producing parts of the country in order to implement the policy of the Government regarding the industry.

(ii) *Research :* There should be a well-equipped research institution for each Sericultural Region and a Central Institute for the whole of India where the results of research in the regions would be co-ordinated.

(iii) *Technical Assistance :* There is already much knowledge and experience available in India and no foreign assistance is necessary except for specific purposes which will have to be decided by the Central Silk Board.

(iv) *Standardisation of products :* Every producing State or Province should set up one or more Conditioning Houses

for issuing certificates of quality and standard, and to deal with silk imports, there must be at each port of entry a Conditioning House run by the Central Government. An all-India Inspector of Conditioning Houses for periodical inspection of all Conditioning Houses should be appointed.

(v) *Protection* : The Industry deserves protection and fulfils all the necessary conditions.

(vi) *Decontrol of Prices* : As silk is an article of luxury, the price should be decontrolled without delay.

(vii) *Foreign Raw Silk entering as war reparations* : As the effect of releasing Japanese reparation silk in the market at a very low cost price would be disastrous to the indigenous industry, it should only be released in the market at the prevailing price.

7. Government have not yet passed orders on the Report.

SUMMARY OF THE REPORT ON WOOLLEN TEXTILES

Present position of the industry

1. At the outbreak of World War II (1939-45) there were 15 woollen mills in India, and the total capital invested at the end of 1939 was somewhere between three and four crores of rupees. The worsted industry depends mainly on imported wool as most Indian wools are unsuited for the worsted process. Imported Merino is also required for fine quality woollens. The mills produce chiefly serges, shirtings, drab mixtures, flannels and overcoatings. The following table gives a rough idea of the existing capacity of the mill industry :—

Woollen spindles	.. 50,000
Worsted spindles	.. 37,500
Powerlooms	.. 2,300
Handlooms in mills	.. 500

Target of expansion

2. The attached table gives in a summarised form the average annual imports and indigenous manufacture of woollen goods during 1936-39 and an estimate of India's requirements during the first five years of the post-war period. It will be seen that the Panel expect an overall increase in consumption of about 60% over the pre-war consumption. In their opinion the target figures of production given in the table can easily be met by the existing plants, and by new plants already licensed so far as the heavier weight fabrics are concerned. They accordingly recommend that no further licences to new parties for imports of woollen worsted machinery should be issued during the first post-war quinquennium, and that new licences should hereafter be confined to existing woollen mills seeking to rehabilitate or balance their plant or to substitute fine count spinning for existing heavy counts.

Statement showing the average annual imports and indigenous manufacture of woollen goods and an estimate of India's requirements during the first post-war quinquennium.

a—Imports

b—Indian production.

I t e m	1936-1939 Average pre-war consumption (i.e. pre-war import + Indian production.) lbs.		Estimate d Indian requirement during the first 5 post-war years lbs.
	a	b	
Woollen Knitted Apparel ..	a 269,000	b 950,000	2,200,000
		1,219,000	
Woollen Worsted Piecegoods ..	a 2,153,000	b 1,347,500	5,500,000
		3,500,500	
Mixtures Piecegoods ..	a 1,413,000	b 74,500	2,500,000
		1,487,500	
Blankets and Rugs ..	a 3,635,000	b 2,137,000	9,400,000
		5,772,000	
Worsted Yarn for Weaving ..	a 1,617,000	b 59,000	3,000,000
		1,676,000	
Knitting wools and Hosiery ..	a 1,169,000	b 430,000	2,600,000
Yarns		1,599,000	
	a Nil	b 672,500	1,000,000
Shawls and Lohis ..		672,500	
	a Nil	b 1,856,000	3,000,000
Carpet Yarns (Woollen Yarns .. for carpets and Blankets)		1,856,000	
	a 144,000	b 67,000	300,000
Mechanical Cloth ..		211,000	
	a 700,000	b 334,000	1,000,000
Other goods ..		1,034,000	

<i>Existing Mills</i>		<i>New Mills for which Capital Issues have been sanctioned</i>	
Cawnpore	2	Benares State	
Dhariwal	1	Baroda	
Bombay	6	Bombay	
Baroda	1	Rampur	
Bangalore	2	Bi'har	
Amritsar	4	Kashmir	
Srinagar	1	Chheharta	
Mirzapur	1	Khasa	
Allahabad	1	Amritsar	Punjab
		Panipat	
		Multan	
		Jaipur	
		Calcutta	
		Mirzapur	
		Ahmedabad.	

Location

3. The Panel are of opinion that the location of the existing woollen mills and of the proposed new ones for which capital issues have been sanctioned is quite rational and no fault can be found with it.

Organisation and Govt. assistance

4. The Panel have made the following recommendations regarding the organisation of the industry and the assistance to be given to it by Government :—

(i) The industry should continue to be run under private ownership as at present.

(ii) In the abnormal conditions created by the World War II the Federation of Woollen Manufacturers in India and the Textile Manufacturers Association, Amritsar, which came into being during the period of hostilities, played an important part in furthering the cause of lac woollen (vide table attached) industry in the country. Their continuance in the post-war period is, therefore, strongly recommended, and the mills are advised to group themselves into one or the other of the two Federations.

(iii) Steps should be taken to establish a Woollen Textile Research Institute.

(iv) Arrangements should be made for training woollen technicians in India and abroad in accordance with a programme drawn up by the Panel.

(v) A woollen Development Section should be started as part of the Industries Department.

(vi) As the Indian Woollen Industry will need help and protection from Government for a long time to come, raw wool and tops should be exempted from customs as at present, and similar exemption should be made in artificial fibres used for blending with wool.

(vii) Woollen machinery should also be exempted from the payment of import duty.

Other recommendations

5. *The Cottage Woollen Industry*: The Cottage Woollen Industry in India is a fairly important one and deserves to be preserved in the post-war period. At the outbreak of the war there were approximately 1,00,000 handlooms in the United Provinces, the Punjab, Jammu, Kashmir, Hyderabad and Mysore State, but their range of production was limited. For the development of the cottage industry the Panel have recommended that the organisational aspect should receive vigorous attention and that a Demonstration Centre equipped with 'H.F.' plant for producing high quality woollen textiles should be established at Delhi.

6. *The Indian Carpet Industry*: With a view to reducing the cost of production of Indian Carpets, and thus popularising them in foreign markets, the manufacture of machine made carpets should be encouraged; and to this end, facilities given for the import of machinery from Germany and U. S. A.

7. The recommendations made by the Panel are at present under the consideration of the Government of India.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON HOSIERY INDUSTRY

• • • Present Position

1. The Hosiery industry has been in existence in India for the last fifty years. The main centres of manufacture are in the provinces of Bengal, Punjab, U.P., Bombay and Madras. The industry is also growing in some Indian States, e.g., Mysore, Indore and Gwalior. The units vary considerably—some are large sized factories, some are sections of large textile mills, while some are run on a cottage industry basis.

Different branches of the industry may be distinguished according as cotton, wool, silk or rayon (artificial silk) is used as yarn for the manufacture of knitted goods. The cotton hosiery branch is the most important and accounts for over 85%

of the total consumption of yarn by the industry. Most of the woollen, silk and rayon yarn used to be imported from Japan.

Production Target

2. Figures of present production have not been given, but before the war production was quite insufficient to meet the demands of the internal market and hosiery goods of all classes were imported. The Panel consider that the internal demand is bound to increase, not to mention the possibility of developing an export trade. They recommend the following annual production target during the first five post-war years :—

Type of garment.	Annual production target at the end of 1951	Quantity of yarn required.
(1) Underwear.	600 million pieces (including 200 million pieces for export)	150 million lbs. At the rate of about 4 oz. per garment.
(2) Outerwear including neckware, head-ware, etc.	100 million pieces (including 33 million pieces for export)	37½ million lbs. At the rate of about 6 oz. per garment.
(3) Footwear inclu- ding socks, stock- ings, etc.	50 million pairs (including 17 million pairs for export).	4 million lbs. At the rate of About 1 lb. per doz. pairs.

The Panel anticipate that this production would be divided between cotton, woollen and rayon hosiery as follows :—

Type of garment.	Anticipated % of cotton hosiery.	Anticipated % of woollen hosiery.	Anticipated % of rayon and staple fibre hosiery (in- cluding silk)
1. Under-wear	80	10	10
2. Out-wear	60	40	—
3. Foot-wear	70	20	10

In order to achieve this production target the Panel estimate that over 15,000 knitting machines will have to be imported and that altogether capital goods worth Rs. 10 crores will be required during the quinquennium.

Location

The Panel are of the opinion that besides the general principles laid down in the industrial policy of the Government, no other factors should govern the future location of hosiery facto-

ries in India, and they make no specific recommendations in this regard.

Recommendations Regarding the Extent of Govt. Control

4. The industry should be run entirely by private enterprise. The necessary private capital will be forthcoming, in the Panel's opinion, for the projected expansion. There should be no Government controls except those which may form part of the general industrial policy of the Government.

Nature of Government Assistance Required

5. The industry should be assisted in the following ways :—

- (a) *Protection*.—The present rate of tariff granted should be continued.
- (b) *Establishment of needle manufacturing factories*.—Early steps should be taken to establish factories for the manufacture of hosiery needles in this country. The possibility of manufacturing knitting machines in India should be explored.
- (c) *Research*.—A separate research section should be attached to the Cotton Technological laboratory, Indian Central Cotton Committee, Bombay for tackling research problems. The Government should sanction an adequate research grant for this purpose and provide for active coordination between the industry and the proposed research section.
- (d) *Help for developing export trade*.—The Panel think that with the elimination of Japan there are bright prospects of developing an export trade of which advantage should be taken. Government should provide facilities by reduction of railway freights.

Miscellaneous Recommendations

6. The Panel have also made the following miscellaneous recommendations :—

- (a) *Supply of yarns*.—Government should keep constantly in view the needs of the hosiery industry when allocating spinning plants both for cotton yarn or worsted yarns.
- (b) *Development on cottage industry basis*.—When Government electrification plans mature and power is available in the villages at cheap rates, the industry should be developed on a cottage industry basis.
- (c) *Industrial Association*.—Hosiery manufacturers should form themselves into an association for the develop-

ment of the industry, particularly with regard to fixing specifications and grades of products both for internal and export markets. The Panel do not favour a cartel for the industry.

Government Orders

7. Government have decided that it is not necessary to lay down targets of production or to indicate or restrict the location of new units. Orders on the remaining recommendations have not yet been passed.

SUMMARY OF THE REPORT ON COTTON TEXTILES

In February 1945, the Government of India appointed a Committee to prepare a plan for the development of the Indian Cotton Textile Industry, and suggested to them that the aim should be to increase the productive capacity of the existing mill industry from 4,800 million yds. to 7,200 million yds. per annum of mill-made cloth. The principal decisions which have resulted from this Committee's appointment are set forth in the following paragraphs.

Target of expansion

1. The Committee agreed that the expansion of the mill industry proposed by Government might in principle be desirable, but they considered it impracticable in the immediate post-war period owing to the impossibility of procuring the necessary textile machinery. They recommended, therefore, that for the present the aim should be to expand mill production by 1,700 million yds. per annum only (510 million yds. fine cloth and 1,190 million yds. coarse cloth) which would mean an increase of 2.75 million spindles (1.25 million for fine counts and 1.5 million for coarse counts). This has been accepted by Government as an interim target. The broad results are expected to be as follows :—

Existing production of mill-made cloth	4,800	million yds.
Existing production of mill-made hand-loom cloth	1,500	" "
Proposed increase in production of mill-made cloth	1,700	" "
Total	8,000	" "
Less provision for export at 10% of total production	800	" "
Balance available for India	7,200	" "

Assuming that the total population of India is about 400 million,

the above production would provide approximately 18 yds. of cloth per head per annum.

• . •
Allocation of new spindleage

• 2. The Committee made recommendations for the allocation of the new spindleage to different Territorial zones on the principle that industrial enterprise must be distributed, as far as practicable, on a country-wide basis. The Government of India have accepted these recommendations subject to some minor modifications. The resulting allocation of new spindleage is shown in the attached table.

Statement showing spindles installed in India as on 1st January
1945 and allocation of new spindleage.

Zone	Spindles installed as on 1st January 1945	Allocation of new Spindleage	
		Fine Spindles	Coarse Spindle
1 Bombay Surplus Area	5,941,164	171,000	75,000
2 Sind (including Baluchistan) Deficit Zone,	2,216	...	100,000
3 Punjab (including Delhi) Deficit Zone.	224,023	114,000	423,000
4 U. P. Deficit Zone.	773,288	114,000	175,000
5 Bihar Deficit Zone.	25,040	38,000	225,000
6 Bengal (including Assam) Deficit Zone.	480,924	125,000 + 100,000 (Coarse and Fine mixed)	
7 Orissa Deficit Zone.	...	19,000	125,000
8 C. P. Deficit Zone.	374,030	76,000	100,000
9 South Deficit Zone.	1,955,538	190,000	375,000
10 Rajputana Deficit Zone.	519,222	38,000	100,000
TOTAL ...	10,295,445	885,000 100,000 (Coarse & Fine mixed)	1,873,000

Grand TOTAL:— 2,858,000

Handloom Industry

3. The only evidence regarding the quantities of cloth produced by handlooms in India is contained in the Report of the Fact Finding Committee (Handlooms and Mills) 1942 which puts pre-war production at 1,500 million yards. per annum. This production would require 333 million lbs. of yarn per annum. The surplus yarn produced annually at present by all existing mills is estimated to amount to 503 million lbs. The Committee considered that this surplus was quite sufficient to provide for the future requirements of the handloom industry as well as to meet the demand of other consumers. The Government of India were not, however, entirely satisfied on this point, and therefore, in order to ensure increased supplies of yarn to handloom weavers and other consumers, they have directed that 25% of the new spindles installed should be left uncovered by looms.

Tariff Policy

4. In order to encourage fine count spinning in India, the Committee recommended a reduction in the duty on foreign (long staple) cotton from two annas to half an anna per lb ; and in order to encourage the export trade, they recommended a full rebate of import duty paid on cotton. The Government of India did not consider these measures justified in the present non-competitive conditions of world trade, but have promised to review the matter when competitive conditions return.

Import of Textile Machinery

5. The Committee recommended—

(i) that the import of machinery for new plants and extensions of old plants in accordance with the approved allocation (vide paragraph 2 supra) should be permitted freely from all countries.

(ii) that the import of second-hand or reconditioned productive machinery should *not* be permitted,

(iii) that where import of productive machinery is permitted for replacement of *existing* plant, the replaced plant should be scrapped.

In view of the existing shortage of cloth and the probable inability of India to produce enough cloth for her own requirements for some years to come, the Government of India have not been able to accept the last two recommendations in their entirety. As regards the first recommendation, the Government of India consider that import of machinery from countries whose currencies are scarce, should only be permitted where there is reason to suppose that the machines will be appreciably better

or cheaper or will be delivered appreciably earlier than if obtained from the sterling areas.

6. For further details reference may be made to the printed publication 'Report of the Post-war Planning Committee (Textiles)'.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON READYMADE CLOTHING INDUSTRY

Present position

At the outbreak of World War II India had scarcely developed a Readymade Clothing Industry. There were two small factories owned by Railways to meet their own requirements and there were a few firms in large cities producing readymade garments on machines, but generally speaking the industry did not cater for the civilian population. However World War II produced as many as 9 clothing factories and three parachute factories to meet army requirements. In December 1944 these concerns employed over 14,100 skilled labourers, 2,300 semi-skilled labourers, 11,300 unskilled labourers, and in addition more than 200,000 workers were employed by Contractors throughout the country. Compared with the normal peacetime output of 90,00,000 readymade garments the output in 1942-43 was about 100 million garments. With the cessation of hostilities there has been a considerable drop in demand for military clothing and unless measures to switch over to peacetime requirements are kept in readiness there will be unemployment, besides loss of energy and labour expended in organising the industry to its present pitch. An additional reason for having this Industry is the fact that at least 5 to 10 per cent. saving in cloth can be effected when the cloth is cut on a mass scale by modern methods.

Post-war targets

The panel recommend that five readymade clothing factories should be established during the first five post-war years. Each factory should have a minimum production capacity of 10,800 garments per day and they should increase their production annually by 25%.

Location

These factories can with advantage be located at :—

Madras, Bombay, Calcutta, Delhi and Amritsar. As the industry already exists at these places technical personnel will be readily available. Moreover these places are important textile producing centres.

Raw materials and machinery

Cloth is the chief raw material and the five proposed factories will consume on an average about 4 million yards of cloth per month. Modern machinery should be imported. Capital goods worth about Rs. 35 lakhs will be required in the first five post-war years.

Organisation

The industry can be left entirely to private enterprise. No foreign co-operation in the form of capital or management is necessary.

Government assistance and control

The panel have made the following recommendations regarding Government assistance and control :—

(1) There should be Government control over marketing and distribution of products, supply of materials, designs and specifications, prices and wages.

(2) Government should appoint a special officer with high technical qualifications and a small technical establishment under him to study the problems of the Industry and run one of the Ordnance Clothing Factories, which are to be closed down, as a model institution. A small Advisory Committee consisting of representatives of the trade should be constituted to guide the work of the above organisation.

(3) The industry does not need protection but concessional railway freights may be allowed for transport of cloth required for the industry.

(4) Provincial Governments should provide all facilities such as supply of electric power at concessional rates, acquisition of land, registration of companies etc. to prospective industrialists who wish to start this industry.

(5) Government should arrange to allocate the required quota of cloth to this Industry.

(6) At least 12 young Indians should be sent abroad every year by the Government for advanced technical training in the different branches of this Industry. Training of lower technical personnel such as tailors, supervisors etc. should be done at the proposed Government Polytechnics which are to be established in the country.

Export

The question of export should be taken up later when the present acute shortage of textiles has eased. In the event of

India exporting textiles at all, Government should insist that these should be, so far as possible, in the form of readymade garments.

No action has yet been taken on the report.

SUMMARY OF REPORT OF PANEL ON SUGAR, ALCOHOL AND FOOD YEAST

Target

I. SUGAR

The average annual production of sugar in India during the period from 1939-40 to 1943-44 was 10,84,000 tons. The Panel estimated that the present effective demand for sugar was about 50% higher than in 1939. Accordingly, they recommended a target of 16 lakh tons per annum to be reached by 1950, of which 15,50,000 tons was for internal consumption and 50,000 tons for export.

Government's decision

Government however, considered the target too low as internal consumption is certain to increase very substantially, and accordingly they decided to increase the target to 18½ lakh tons.

The Panel proposed to achieve the increased production which they recommended as follows :—

- | | | |
|--|---------|---------------|
| (1) By increasing supply of sugarcane to existing factories (e.g. by construction of roads in existing factory areas or shifting certain units to more suitable sites) | .. .. . | 1,70,000 tons |
| (2) By expansion of existing uneconomic units | .. .. . | 1,00,000 tons |
| (3) By installation of new units | .. .. . | 2,00,000 tons |

Location

2. The proposals regarding the expansion of existing units are :—

- (a) that factories below 250 tons crushing capacity per day should not be allowed to expand ;
- (b) that factories with a crushing capacity of 250 to 800 tons per day should be allowed to expand to the latter capacity ;

As regards new units, the Panel have recommended that as U. P. and Bihar between them have already got 103 out of 154

vacuum-pan factories and produce over 70% of the total sugar produced in the country, all new units should be installed in areas other than U. P. and Bihar. 15 units, each with an annual capacity of 10 to 12 thousand tons, have been recommended for installation—4 each in Madras, Bombay (including Deccan States), Punjab (including Punjab States), and Bengal, and one each in Assam, Orissa and Sind, besides the five new projects which had already been approved by Government—one each in Travancore, Hyderabad, Baroda, N. W. F. P. and Bihar.

Government's Decision

These recommendations of the Panel have been accepted by the Government except that the I. & S. Department is to have the discretion to agree to the setting up of one or more new units in the U. P. and Bihar if the adoption of such a course is found to be of practical advantage.

It has been decided that both the new units and the expansion of existing factories should be sanctioned subject to the condition that they make all their arrangements and place final orders for machinery within 30 months of sanction.

The allocation to Provinces and States of the extra 250,000 tons, which Government's decision to increase the target makes available, is under examination.

Capital Goods Required

3. The total estimated cost of machinery required is Rs. 11 to 12 crores. The Panel have recommended that a central expert organisation should be set up for ascertaining the requirements with a view to classifying and consolidating them.

Government Control and Assistance.

4. The following are the main recommendations made by the Panel regarding Government control and assistance :—

(i) *State Control.* The industry should be privately owned, but the State should control production, prices and distribution; the control should be exercised through an official controller assisted by official and non-official interests and should extend to other matters such as conditions of labour, etc; all existing provincial legislation dealing with these matters should be abrogated; legislation to provide for the licensing of all existing and new sugar factories should be undertaken.

(ii) *Marketing Organisation.* The actual distribution of sugar should be by an organisation the membership of which should be compulsory for all sugar factories.

(iii) *Price of Sugar.* Measures should be taken to reduce the price of sugar by increasing the efficiency of factories, etc.

(iv) *Tariff Policy.* Tariff protection should be continued for the next five years pending consideration by the Tariff Board.

(v) *Excise duty.* The protective duty should be gradually reduced in order to lower the price of sugar for consumers.

(vi) *Bounties and Export Advisory Services.* These are not necessary. The existing Institute of Sugar Technology should be able to improve technical efficiency by inspection of factories, etc.

(vii) *Research.*—Research should be intensified. The present Central Government grant of 1 anna per cwt. from excise duty should be increased to 4 annas per cwt.

(viii) *Indian States.* Indian States should participate in the operation of all-India control of sugar on the same basis as the British Indian Provinces and their policy in regard to production, distribution, prices etc. should be in line with all-India policy.

The above recommendations are being examined by Government.

II. POWER ALCOHOL

Target

1. The pre-war consumption of petrol in India was 100 million gallons, and production 17 million gallons. Post-war requirements are estimated at 120 million gallons. The target production of sugar in the post-war period will yield sufficient molasses for the production of 26 million gallons of alcohol, of which 20 million gallons should be power alcohol.

Government's Decision

Government have accepted the recommendation that the target should be 20 million gallons plus such figure as would be justified by the raising of the sugar target by 250,000 tons.

Location

2. The Panel recommended the setting up of 20 standard distilleries of one million gallons capacity each; 11 of these distilleries to be located in U. P., 4 in Bihar, 2 in Bombay, 2 in Madras and Orissa and one in Bengal.

Government's Decision

Government have decided that (1) the total number of distilleries should be increased in view of the increased target for power alcohol and that these additional distilleries should be established in Provinces other than U. P. & Bihar, (2) the Pro-

vinces should be advised that a distillery with one million gallons capacity would be the most economic unit, but that local conditions may justify a higher or lower capacity unit and (3) detailed provincial allocation should be revised in the light of all relevant factors. Action in this regard is being taken.

Other Recommendations

The Panel made the following other main recommendations :

3. (i) *Proportion of alcohol and petrol.* A mixture of 20% alcohol and 80% petrol is the most suitable and should be made compulsory for such areas as are notified from time to time.

Government have accepted the recommendation and noted that Central or Provincial Legislation will be necessary to give effect to it.

(ii) *Ownership.* Each distillery should be owned by a group of sugar factories capable of meeting its molasses requirements.

Government did not accept this recommendation and considered that complete freedom in this regard should be allowed.

(iii) *Licensing.* All distilleries should be licensed.

(iv) *Survey of the Existing Distilleries.* A careful survey should be made with a view to necessary extensions, replacements and shifting.

(v) *Central Control.* The production, distribution, etc. of Power Alcohol and Molasses should be under central control, to be exercised by an Alcohol Commissioner who should be assisted by an expert adviser.

(vi) *Excise Duty.* A duty lower than that on petrol should be charged on power alcohol. No excise duty should be charged on industrial alcohol used for industrial purposes other than motor fuel.

(vii) *Inter-Provincial Excise Barriers.* All inter-provincial excise barriers regarding labelling etc., of industrial alcohol and spirituous preparations should be removed and the whole of India treated as one unit.

The recommendations at (iii) to (vii) above are being examined by Government.

III. FOOD YEAST

The Panel is of the opinion that the main difficulty regarding Food Yeast is not connected with the production but with the consumption of the article. The Panel recommend that Government should, at the outset, encourage sugar factories or other manufacturers to put up small units with a production capacity of one ton per day.

Government are considering the installation of a Food Yeast factory of a capacity of 3,000 tons per annum.

SUMMARY OF THE DRAFT REPORT ON GLASS INDUSTRY**Present Position**

1. The Glass Industry in India represents diverse types of industrial organisation, varying from the cottage-industry type to large scale units, controlled both by proprietary and managing agency systems. The size of the average factory is not very large and the number of factories with capital exceeding a few lakhs is comparatively very small.

The reasons for the present backward state of the industry are (i) unfair competition by well established foreign industries (ii) the failure of the State to extend tariff protection on an adequate scale (iii) lack of sound internal organisation and (iv) low technical standards and slow progress in technical developments.

2. The types of articles at present produced by the Indian Glass Industry can be classified under the following heads:—

(1) Bangles (2) Hollow-ware, including Lampware and Tableware (3) Bottleware (4) Sheet glass (5) Pressed ware and fancy goods (6) other varieties including scientific glassware, rods, test tubes, glass shells for electric bulbs etc.

General Objective

3. The general aim should be to raise the scale and quality of output of those sections of the glass industry which have already been developed in India so as to meet the whole of domestic requirements, and to initiate without delay production in other lines, e.g. plate glass and optical glass.

TARGETS

The production and target figures for the different sections of the glass industry are given below :—

Section.	Pre-war production 1937-38	Pre-war imports 1937-38	Present production capacity.	Target for the first 5 year period.	Remarks.
Bangles	Rs. 80 lakhs (18,000 tons)	Rs. 29.3 lakhs	18,000 tons	10% increase viz. 1800 tons	Development should be particularly in fancy bangles.
Beads & False Pearls	...	Rs. 18.9 lakhs (estimated 4200 tons)	120 "	4,200 tons	Proper technical training should be arranged with a view to increase domestic output to meet the entire requirements.
Bottles and Phials	Rs. 10 lakhs (estimated 40,000 tons)	Rs. 29.3 lakhs.	100,000 "	1,00,000 tons	No increase in output necessary, but quality has to be improved.
Lampware	Rs. 20 lakhs (9500 tons)	Rs. 6.9 lakhs.	10,000 "	14,000 "	
Tableware	Rs. 8 lakhs (5000 tons)	Rs. 6 lakhs.	5,000 "	7,500 "	
Sheet Glass	4 million sq.ft.	24 million sq.ft.	20 million sq.ft.	42 million sq.ft.	Increased requirements of the home market will be met without import.
Pressed-ware	Rs. 2 lakhs (2500 tons)	Rs 5 lakhs	2,000 tons	4,000 tons	
Plate & Flowered Glass	...	3.7 million sq.ft.	Nil	3.7 million sq.ft.	
Scientific Glass apparatus	Negligible	Rs. 1.9 lakhs.	Negligible	Rs. 10 lakhs.	Particular attention should be paid to maintaining quality and precision.
Glass shells	...	...	14 million pieces	25 million pieces	
Optical Glass	...	...	Nil	No definite target fixed	No statistics available. This is a vital strategic industry and must be started under Government auspices.

The new lines in which production should be initiated or developed are Beads and False Pearls, Plate glass, and Optical glass. The Panel have not made any specific recommendations as to the number and type of manufacturing units required for setting up these sections of the industry.

Location

4. A rational localisation policy has to be formulated and enforced through a licensing system, so as not to sacrifice the most economic production and efficient utilisation of the resources and transport facilities. Nearness to markets should be a greater determining influence than nearness to raw materials in view of the fragile nature of glassware.

Organisation of the Industry

5. *Ownership.* The glass industry should not be owned by Government, except in so far as this may be necessary for the establishment of the Plate glass and Optical glass sections of the industry. For these sections private capital is not likely to be forthcoming and Government will have to provide at least half the capital and also enlist the cooperation and technical assistance of foreign firms. The Canadian model of cooperation with foreign firms should be studied.

Cottage Industry. There is large scope for development on a cottage industry basis of bangle-making, bead-making, table-blowing etc.

At the same time there is urgent need for greater mechanisation in the large-scale section of the industry.

Industrial Associations. Representative Industrial Associations should be established. Government should grant recognition to the All-India Manufacturers' Federation, which should be consulted in matters of policy affecting the interests of the industry.

Constitution of a Consultative Committee. A small Consultative Committee consisting of the Chairman of the Panel, a representative of the Glass Manufacturers' Federation and a representative of the Central Glass and Ceramic Research Institute should be constituted, as the recommendations of the Panel are of such a character that for some years to come, occasional consultations will be necessary.

Government Assistance and Control

6. *Survey.* A comprehensive survey of raw materials, either under the direction of the Geological Survey of India, or the C.S. I.R., should be undertaken.

7. Protection. The case for protection was made by the Tariff Board set up in 1931 and should again be referred to the Tariff Board for enquiry into details of the kind and extent of protection for different types of articles to be extended to the industry.

Railway Freights. Railway freights for glassware will have to be rationalised and made more homogeneous.

Trade Marks and Standardization. If the industry is granted protection, Government must ensure that it develops along proper lines so that its products can compete with foreign products. Details of control cannot be prescribed at this stage; but the institution of a system of Trade Marks for the individual factories and the standardisation of both raw materials and finished goods would be necessary.

Research. The Central Glass and Ceramic Institute, which is being established at Calcutta, should be provided with ample funds, equipment and staff and Provincial Departments should be affiliated to it.

Training. (i) Facilities afforded by existing technical Institutes should be further widened in scope, as an integral part of the provision of technical training in this country.

(ii) A specialised State School like that at Gablenz in Czechoslovakia should be started at Firozabad with teachers trained over there and some experts brought from there.

(iii) It is essential to import foreign experts to train Indian workers and also to send suitable Indian personnel for training abroad in Glass Technology. This probably cannot be achieved without interesting foreign firms in the Indian industry in one form or another.

(iv) As a first and experimental measure the following four types of operatives should be brought to India from abroad :—

- (1) a foreman for operating semi-automatic machinery in the Blowing Department,
- (2) an engineering worker for maintenance and repair of semi-automatic machinery in the Blowing Dept.,
- (3) a smelter for tank furnaces,
- (4) a foreman of the Pressed-ware Department.

These men should be attached to the Central Glass and Ceramic Research Institute at Calcutta.

Collection of Statistics. Statistics regarding the industry should be collected and properly classified by the Central Glass and Ceramic Research Institute.

Government Orders

7. The report is being finalised and Government have not yet passed any orders on it.

SUMMARY OF DRAFT REPORT OF THE PANEL ON REFRACTORIES AND CERAMICS INDUSTRIES

1. CERAMICS INDUSTRY

1. *Potential capacity of existing units.* The pottery industry in the modern sense is of very recent origin in India. At present there are in all 49 pottery and porcelain factories in different Provinces and States. The approximate tonnage of various types of ceramics manufactured in 1939 and 1945 in the country was—

	1939	1945
(a) White ware	2,000 tons	5,640 tons
(b) Insulators	2,200 tons	8,300 tons
(c) Stoneware	4,500 tons	5,400 tons

The white-ware handled by the Indian industry have been mostly in the cheaper line. For example, in table-ware only cheap types of cups, saucers, tea pots, plates etc. have been manufactured. In the line of low tension insulators, however, the Indian industry supplies nearly 90% of the country's demands. This particular line is fairly well established and the danger of foreign competition from the point of quality and price is not great. The manufacture of stoneware jars has also been well established in the country. This particular type has developed greatly within the last decade and there are prospects of its further expansion in the post-war years.

2. *Target of expansion.* Having regard to the volume of production and import of various types of potteries in recent years, the Panel have made the following recommendations for the expansion of the ceramics industry on an All-India basis during the first post-war quinquennium :—

(a) The targets of expansion should be

		Percentage of increase over the 1945 pro- duction.
(i) White ware	6,768 tons per annum	15%
(ii) Insulators	9,545 tons per annum	15%
(iii) Stone ware Jars	6,480 tons per annum	20%

(b) The production of cheap and durable quality of white ware should be increased by 100% within the shortest possible time. The production of sanitary ware, hospital ware, chemical porcelain etc. should be increased according to demands and the targets for high and low tension insulators should be set, having regard to contemplated programmes for thermal and hydro-electric power projects and expansion of telephonic and telegraphic communication.

3. *Location.* The location of factories should be on a regional basis.

4. *Other recommendations.*

(i) Investigation within the shortest possible time of the raw material resources of the country.

(ii) Standardisation of raw materials.

(iii) Arrangements for technical education, both Supervisory and Artisan type, by sending Indians abroad and by opening centres in Indian universities.

(iv) Liberal Grant of licences for the import of Capital Goods.

(v) Import of good Ball clay duty free.

(vi) Establishment of Research Institutions.

(vii) Fixation of special railway freight rates for the transport of raw materials.

II. REFRACTORIES

1. *Potential capacity of existing units.*—The refractory industry deals with the manufacture of several varieties of products—e. g. fire-bricks, Silica bricks, Chrome bricks, Magnesite bricks etc. There are at present 5 large and 16 small refractory manufacturing plants in India, and the total production capacity of these plants is over 2,00,000 tons per annum. The majority of them are located in the coal field areas of Bengal and Bihar, within a radius of 30 miles of Asansol, and there are only a few in C.P. and other parts of the country. The iron and steel industries consume 50% of the entire production of refractories. In the pre-war days a small quantity was made available for export to neighbouring countries. During World War II (1939-45), however, the rapid industrial expansion created greater demand for refractories, with the result that at the last stage of the war some quantity had to be imported from abroad. Specialised refractories (e.g. Chrome-Magnesite brick, Graphite refractories, Silicon Carbide products, high temperature cement, Glass pots etc.) which are vital to the industries concerned are normally imported from abroad.

2. *Target of expansion and location.*—The extent of development of the existing refractories industry will depend upon the expansion of steel and other industries in the post-war period. On the basis of the data collected, the Panel have recommended that the target for increase of production may provisionally be fixed at 100% during the next ten to fifteen years. This increase of production should be secured, firstly,

by expansion of capacities of existing works, and secondly by setting up new works near about the existing refractory works in the Bengal-Bihar coal fields and possibly also in C.P. The manufacture of special type of high priced refractories may be located in other areas.

3. *Other recommendations.*

(i) Establishment of the manufacture of critical refractories like Graphite and Silicon Carbide.

(ii) Proper utilisation and conservation of Indian Cyanite and Sillimanite for making refractories, specially used in the glass and non-ferrous metal industries.

(iii) Adoption of a systematic national policy for the conservation of Chrome and other essential raw materials to prevent their depletion by injudicious and uncontrolled export and crude mining methods.

(iv) Standardisation of specifications.

III. TERRA COTTA INDUSTRY

The manufacture of roofing and paving tiles has, up till now, been limited mostly to South India. In view of the importance attached to this particular type of building material, the Panel has recommended that the industry should be totally decentralised so that every group of villages, within a radius of 100 to 150 miles, may have its own sources of supply of roofing and paving tiles and street paving bricks. Initially the industry should be properly organised under Government patronage by (i) making use of the Research Laboratories for carrying on the spade work for testing suitable material in different parts of the country and (ii) designing suitable machinery and furnaces for large scale production so as to reduce the cost of production considerably. It is also recommended that the expansion of the industry should be linked with the programmes for the improvement of village sanitation and standards of housing.

4. *Ownership.*—The Panel are of the opinion that the Refractories and Ceramics Industries should be allowed to develop under private enterprise.

5. The Report is being finalised.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON OILS AND SOAPS

Present Position

1. The present production of soap in India is about 140,000 tons per year, as against a production capacity of about 160,000 tons. The *per capita* consumption per year is about 12 oz. which is very low.

The present output of glycerine from soap factories is about 2,500 tons.

Target of Production

2. The five year target for soap should be 300,000 tons per annum. This would provide 24 oz. *per capita* for a population of 440 millions. The target for glycerine should be 6,500 tons.

Raw Materials

The proposed expansion will involve a greatly increased consumption of oils, fats and resin. The latter is available in large quantities in India and should be used as much as possible in order to conserve resources of oils and fats. It will, however, be necessary to import certain oils, aromatic chemicals and soap, colours for some time to come. The import of soft wood to make packing cases for soap may also be required.

Location

3. The Panel have recommended the following locations :—

Location	Existing production capacity per month	Total production recommended per month	Extra production required per month
Bombay area (Bombay province, parts of C. P., Hyderabad & Deccan State)	4,000 tons	6,500 tons	2,500 tons
Karachi area (Sind, Punjab & ...)	3,000 „	5,000 „	2,000 „
Calcutta area (B. ngal, Assam, a part of Bihar & C. P.)	4,000 „	6,500 „	2,500 „
N.W.F.P. U. P. area (U. P., Delhi parts of Bihar & C. P.)	1,000 „	3,500 „	2,500 „
Madras area (Madras province, a part of Hyderabad, Mysore & other Southern States)	1,300 „	3,500 „	2,200 „
	13,300 tons	25,000 tons	11,700 tons

Organisation of the Industry & the extent of Government Control and Assistance

4. The Panel have made the following recommendation, regarding the organisation of the industry and the extent of Government control and assistance :—

(i) *Ownership.* The industry should be entirely under private ownership, but development on a cottage industry basis is not recommended.

(ii) *Industrial Associations.* There is already an All-India Soap Making Association, but in view of the large size of the country and the wide distribution of the industry, there must be regional associations affiliated to the central association. No cartel is desirable.

(iii) *Enforcement of standards.* Suitable steps should be taken for enforcement of the specifications regarding the anhydride content in soap.

(iv) *Tariffs etc.* Duty on such essential oils, aromatic chemicals and fatty oils, as are not produced in India, should be lower than the duty on soap. The present revenue duty on all soaps should continue.

(v) *Export.* Government should give support for development of an export market to Asiatic countries and East Africa and Egypt.

(vi) *Training.* Arrangements should be made in large factories in India for the training of 5 students per year, and Government should make arrangements for the training of 10 students per year in foreign countries in the manufacture of soap and the recovery of glycerine in soap factories.

(vii) *Subsidy.* Government should grant a subsidy to established firms to undertake the manufacture of soap goods.

5. The report is being finalised and Government have not yet passed orders on it.

SUMMARY OF THE REPORT OF THE PANEL ON LEATHER AND LEATHER GOODS

Present Position and Proposed Expenditure

1. India's resources of raw hides and skins are abundant, and before the war large quantities used to be exported. With the development of the tanning and leather goods industry, India will be able to use all these resources. The panel have shown that it is uneconomic to export them in their raw state, and has

recommended that export of raw hides and sheep skins should be banned completely ; and that export of raw goat skins should be restricted to 30% of the pre-war figure.

The following table, showing the disposal of the hides and skins available in India in the year immediately before war, gives some idea of what this recommendation of the panel amounts to :—

Description	Total available including imports (in lakh pieces.)	Tanned in India (in lakh pieces)	Exported as raw (in lakh pieces.)
Buffalo hides	62	55.8	6.2
Cow hides Kips	205	158.9	46.1
Goat skins	300	60.6	239.4
Sheep skins	200	186.8	13.2

The Panel visualises an all-round expansion of both the tanning and the leather footwear and leather goods industry. These may be considered separately.

Supply of Tanning Materials

2. *Tanning Industry.* The tanning industry requires an adequate supply not only of hides and skins but also of tanning materials. The indigenous tan stuffs are Babul Bark (used widely in Northern India) and Avaram Bark (used in Southern India) ; but of recent years they have been steadily replaced by Wattle Bark (*Acacia Mollissima*) imported from South Africa and Kenya. Wattle Bark is gaining in popularity and the Panel consider that it has come to stay. They recommend that measures be taken to introduce large scale wattle plantations in this country at once and that an expert delegation be sent as soon as possible to study the wattle plantation industry of South Africa.

Meanwhile attempts should be made to keep up the supply of Babul and Avaram Bark.

Attempts should also be made to establish a tanning extract industry in India and to manufacture synthetic tannins.

Target of Production

3. The bulk of the leather produced by the tanning industry falls into five main classes. The pre-war production and the post-war targets proposed by the Panel for each of these five classes are shown in the table below,

	Pre-war production	Post-war targets
Vegetable or Bark Tanning		
(1) Bag-tanned leather	91	95.5
(2) Half-tanned leather Hides	86	86
Goat & sheep skins	190	272
(3) Pit tanned heavy leathers (e. g. sole, harness & belting)	6	42
Chrome Tanning		
(4) Box and willow sides	70 million sq. ft.	140 million sq. ft.
(5) Glace kid leather	Not given	30 lakh pieces above current pro- duction

Methods of Reaching Targets and Suggested Location of Industry

Bag tanned leather.—The Panel consider that the target can be reached by banning the export of raw hides, by organising bag tanners into co-operative societies and by giving them technical help through peripatetic demonstration parties.

Half tanned leather.—This branch of the industry is located chiefly in Southern India. For its expansion an adequate supply of raw hides and skins and of tan wattle bark (vide para. 2 supra) are essential. For half tanned hides the target proposed represents no advance on the pre-war production as the panel consider that it will take some time for the industry to regain the pre-war average level. The Panel consider, there is scope for the extension of this branch of the industry to Bengal, Punjab, Orissa and C.P., and for its expansion in Bombay, Sind and Kathiawar. Re-tanning and finishing of half tanned leather should be developed with a view to export of finished leathers.

Pit tanned heavy leather.—Manufacture of this type of leather is at present concentrated at Cawnpore, where there are 8 big commercial tanneries, producing leather of this character. A certain quantity is also produced at Calcutta. Pit tanning is essentially a capitalist industry and not a cottage one.

During the war a great stimulus was given to this industry. It can now tan 42 lakhs buffalo hides annually, but owing to lack of hides it is not working to capacity. It may, with advantage, be expanded in the Punjab, where heavy buffalo hides are available and extended to C. P., Kathiawar, Hyderabad, N. W. F. P. and Bihar.

Box and willow sides, kips and calf.—These are soft leathers which can be used for making shoe uppers. There is room for a very great expansion of production, which can be achieved to some extent by prohibiting the export of cow hides, by installing up-to-date machinery in the existing chrome tanneries and by starting new ones. Nagpur is suggested as one suitable centre.

Glance Kid leather.—This is a highly specialised product used for ladies' shoes and the lighter type of men's footwear. It is manufactured by two European Tanneries at Madras and by Messrs. Cooper Allen and Company at Cawnpore. The Panel considers that there is a great scope for expansion, as huge numbers of goat skins are at present exported raw. The industry would work largely for export as the demand for Glance kid in India is small. In order to attain the suggested expansion, students and Technicians already working in Tanneries should be sent abroad to study the technique of Glance kid manufacture. A Glance kid expert should be brought out from U.S.A. or U.K., and facilities should be given for research, the import of machinery, and the development of export markets.

The Panel suggests that Bengal, Bihar and Southern Madras are suitable provinces for location of Glance Kid Tanneries.

LEATHER FOOTWEAR AND LEATHER GOODS INDUSTRY

Targets

Targets.—The leather footwear industry is still preponderantly hand-worked and run mostly on a cottage basis. It may be divided into two sections, one making indigenous types of footwear and the second Western types. The pre-war production and the post-war targets proposed by the panel are as follows :—

(सिद्ध उद्योग)		Pre-war production	Post-war targets
Indigenous types of shoes		700	1500
Western ••	•• ••	30	45

With a view to achieving these targets the Panel recommends that the shoes industry should be progressively mechanised, beginning with the hand-shoe making factories of Agra and elsewhere. New machine shoe factories should also be established at suitable centres (these are not specified) and facilities given for import of machinery and capital goods.

Leather Goods.

Sports goods.—The Panel recommends that production should be doubled during the first post-war quinquennium and that a big export drive should be initiated.

'Miscellaneous leather goods.—These may be divided into Civilian, Industrial and Military.

Civilian goods.—The main classes of civilian leather goods are :—

(a) Trunks and suit-cases etc., (b) Ladies handbags, and (c) Small leather goods e.g., purses, wallets and cigarette cases etc.

For the first class the Panel recommends 100% increase over the present production, for the second class 100% over the peak production attained during the war, and for the third class 200% production over the present level.

Industrial goods.—Leather machine belting and cotton pickers are the most important items. The Panel recommends that we should aim at completely eliminating the import of pickers by the end of 5 years and replace by home manufacture 75% of the pre-war import of belting. Heavy import duties are recommended on both these articles.

Military goods.—These are turned out at the Government Harness and Saddlery Factory. The Panel recommends that this should be closed down by the end of the first 5 years and that the military demand should be thrown open to the trade.

By-Products of the Leather Industry

(a) **Glue.** About 15,000 tons of glue were imported before the war. Annual manufacture of glue in India should be increased by 7,000 tons so that, part of these imports will be stopped. Export of hide and skin cuttings (glue stock) should be banned.

(b) **Leather Board.**—Production should be increased by 100%.

(c) **Leather Trades Machinery Industry.**—In order to develop the manufacture of leather trades machinery in India the Panel recommends that Government should subsidise or participate in the share capital of deserving concerns.

Government Assistance required for Tanning and Leather Industry

The development of the tanning and leather industries will require Government's assistance in various forms, some of which have already been indicated, e.g., banning of exports of raw hides and skins, plantation of wattle, import duties on certain forms of leather goods. The Panel consider that its assistance will also be required in the following respects:—

(i) **Research.**—A Central Leather Research Institute on a national scale should be established and grants for research made to commercial tanneries and provincial tanning institutes.

(ii) *Training*.—The Panel consider that there is no immediate need to multiply the number of tanning institutes and that inter-provincial arrangements should be made for training students of all Provinces and States in the existing institutes ; but facilities should be arranged for granting practical training to Indian students in industrial concerns abroad, and technicians from abroad should be hired to train the personnel of factories here.

Future Organisation of the Industry

8. Establishment of a Department of Leather Industries and of a Leather Industries Council, both under the Department of Industries and Supplies, are recommended by the Panel. The function of the proposed Department will be to organise and develop the industry along efficient and progressive lines. The proposed Council will serve as an advisory body to it.

The Panel also recommends Provincial Associations, affiliated to an All-India Federation, for different sections of the industry.

Government Orders

9. Government have not yet passed orders on the report.

CEMENT INDUSTRY

Target

1. The Government of India decided that the target of cement production by 1952 should be 6 million tons per annum. The potential capacity of existing plants, taking into account those in process of erection, is expected to be about 3 million tons by the end of 1946.

Location

2. The Associated Cement Companies and Dalmias submitted plans to Government for an expansion of their productive capacity by 1.75 million tons ; and informed Government that their arrangements had advanced to the point where they could order plant immediately on sanction of their projects and start work immediately on the plant being made available. In view of the necessity of securing a rapid increase in production, Government accepted these plans in March, 1945. They also accepted a scheme for the production of cement in Jamnagar upto an estimated 1 lakh tons per year. These arrangements left a balance of 1.15 million tons of production per annum to be achieved in the first 5-year period after the war.

3. For the allocation of the balance (1.15 million tons) a press note was issued in April 1945 inviting applications from persons, other than A. C. C., Dalmias and Jamnagar, wishing to set up cement factories. The applications were scrutinised in

consultation with Provincial Governments, the Political Department and allocations made.

Statements showing how the proposed production of 6 million tons per annum will be distributed between the various Provinces and States are attached

ALLOCATION OF THREE MILLION TONS PER ANNUM OF CEMENT PRODUCTION

Punjab	.. ..	4,50,000 tons
U. P.	.. ..	1,00,000 "
C. P.	.. ..	1,00,000 "
Bihar	.. ..	4,50,000 "
Sind	.. ..	2,50,000 "
Madras	.. ..	5,30,000 "
Assam	.. ..	1,75,000 "
Bengal	.. ..	1,20,000 "
Bhopal State	.. ..	1,00,000 "
Gangpur State	.. ..	1,00,000 "
Tehri Garwhal State	.. ..	1,00,000 "
Sirmur State	.. ..	1,00,000 "
Mysore State	.. ..	30,000 "
Patiala State	.. ..	1,00,000 "
Porbandar State	.. ..	1,00,000 "
Balasinore State	.. ..	1,00,000 "
(now transferred to Bombay Province.)		
Gwalior State	.. ..	1,00,000 tons
Travancore State	.. ..	50,000 "
Jamnagar State	.. ..	1,00,000 "
		<hr/> 31,55,000 "

Existing Cement Works (excluding 3 Million Tons Expansions)

A. C. C.

Wah (Punjab)	.. ..	1,65,000 tons
Surajpur (Patiala)	.. ..	1,00,000 "
Rohri (Sind)	.. ..	70,000 "
Dwarka (Baroda)	.. ..	1,80,000 "
Porbandar (Porbandar)	.. ..	42,000 "
Lakheri (Bundi State)	.. ..	2,20,000 "
Banmore (Gwalior State)	.. ..	60,000 "
Kymore (C. P.)	.. ..	3,55,000 "
Khalari (Bihar)	.. ..	1,00,000 "
Chaibasa (Bihar)	.. ..	1,00,000 "
Shahbad (Hyderabad State)	.. ..	2,10,000 "
Kistna (Madras)	.. ..	80,000 "
Madukarai (Madras)	.. ..	1,80,000 "
		<hr/> 18,62,000 tons

DALMIA

Dandot (Punjab)	.. ..	70,000	tons
Drigh Road (Sind)	.. ..	2,00,000	"
Dalmia Dadri (Jind State)	.. ..	70,000	"
Dalmianagar (Bihar)	.. ..	1,50,000	"
Dalmiapuram (Madras)	.. ..	70,000	"
		5,60,000	tons

OTHER WORKS

Sone Valley Cement Co., Calcutta, (Bihar)	..	2,00,000	"
Assam Bengal Cement, Chhatak (Assam)		70,000	"
Kalyanpur Lime & Cement Co., (Bihar)	..	40,000	"
Andhra Cement Co., Bezwada, (Madras)	..	30,000	"
Mysore Iron & Steel Works (Bhadravati)	..	20,000	"
		3,60,000	tons

SUMMARY OF THE REPORT OF THE VANASPATI ADVISORY COMMITTEE

Target of Production

1. The consumption of vanaspati rose from 38,000 tons in 1938 to 82,000 tons in 1941. The majority of the Committee consider that the target of production for 1950 should be 400,000 tons, and that the effects of expansion should be examined in 1946.

Location

2. The productive capacity of the existing factories together with those under construction, sanctioned under the immediate expansion scheme or allowed under the automatic registration scheme, is estimated at 370,000 tons. Thus, expansion by 30,000 tons only is necessary to reach the target figure.

The distribution of factories, resulting from sanctions for expansion already given, will by no means coincide with what the Committee consider the best distribution. As proposals covering almost the total expansion have been accepted, changes in the distribution will now be difficult. They strongly urge, however, that changes should be made, if possible, and that sanctions granted to parties, who fail speedily to proceed with these projects, should be cancelled. Any lapses or cancellations of capacity in the different regions should be properly adjusted, lapses in the western region being allotted to the northern region and lapses in the eastern region to the southern. Steps should also be taken to prevent any unauthorised increase of capacity.

Raw Materials

3. The Vanaspati factories in India mainly use ground-nut oil as their raw material. Cotton-seed oil is used very little, but

in the Committee's opinion, the possibilities of extending its use should be explored. To get better quality of cotton seed oil for the manufacture of Vanaspati and of oil cake for feeding cattle, cotton seeds should be delinted and decorticated before being crushed. The Committee recommend that Vanaspati factories should be permitted to be erected in cotton-seed producing areas only if they put up their own cotton seed crushing unit, including machinery for delinting and dehushing.

They consider that to stimulate the production of good cotton seed oil, the erection of Vanaspati factories in cotton-seed producing areas should be permitted, at once, and at least one factory of 25 tons daily capacity should be erected in the Punjab.

Nature of Government Assistance Required

4. The Committee recommend :—

(a) that a permanent committee be set up to examine and review standards of quality,

(b) that a permanent Advisory Board, closely associated with the Government Department concerned, should be set up,

(c) that a Central Research Institute, equipped with a pilot plant should be set up.

(d) that 10 persons with experience of Vanaspati factories in India should be sent abroad for training every year for the next 3 years, either at Government expense or preferably at the expense of the manufacturers ; but Government should provide facilities, and

(e) that the import duty at present levied on Vegetable Product is adequate and further protection is not needed.

Other Recommendations

5. The Committee makes the following recommendations regarding export :—

(a) It should be the aim to export at least 50,000 tons of Hydrogenated oils, yearly, by 1950.

(b) Exports of cotton seed and ground-nuts and their oil-cakes should be restricted in the light of the demand for them in India, from time to time.

6. Government have not yet passed orders on the Committee's recommendations.

"COIR, ROPE; CORDAGE AND OTHER FIBRE INDUSTRIES"**The Coir Industry—Preliminary Remarks**

1. The coir industry depends on the cultivation and production of cocoanuts and hence it is mainly confined to South India.

Pre-War Production and Post-War Targets

2. The relevant figures (which are only estimates) relating to coir-manufactured and unmanufactured are given below :—

Province or State	Acreage in 000's of acres.	Pre-war production (Tons)	Post-war targets. (Tons)
Madras	606	25,038	1,00,000
Travancore	585	80,000	1,00,000
Cochin	67,	17,000	19,000
Mysore	170	*	2,400
Bombay	29	63	7,500
Bengal	31	225	225
Orissa	30	*	*

* not available.

The Panel are of opinion that Bombay and Bengal should aim at attaining self-sufficiency, while Travancore, Cochin and Malabar should try to find export markets for their products. With full utilisation of available raw materials, improvement in communications and introduction of improved chemical and mechanical methods of retting, the post-war targets, can, in their opinion, be achieved. They recommend that the cottage characteristics of the industry should not be disturbed and thus disrupt village economy. Introduction of some cheap and easy machinery, worked by manual labour, is advocated.

Marketing of Coir Products

3. The existence of a multiplicity of middlemen should be done away with by organising Co-operative Societies.

As regards foreign markets a set-back was experienced during the war, but as cheap floor-coverings, such as China grass mats, are not available, there is a great demand for coir mats and mattings in U. S. A., Canada and almost all of the European countries. Coir yarn is also in demand. With conditions returning to normal, the present demand may not last, but steps should be taken to expand our markets, preferably for the manufactured goods. This should be kept as an objective in the post-war policy for the coir industry.

The Future Position of the Coir Industry

4. The Panel for various reasons think that competition from Ceylon and preference for Jute floor-coverings, or other cheap floor-coverings will not affect the Indian coir industry in the near future. Regarding hemp, Javan Sisal, East African Sisal etc., the Panel are of opinion that only East African Sisal will be a factor in the world's supply of hard fibres, and this, only after a number of years. This being the case, the cultivation of industrial fibre plants (such as East African Sisal), on a large commercial scale, with the aid of up-to-date machinery, should engage the serious attention of the various Governments. Research should also be directed to the manufacture of synthetic fibres on a commercial scale and improvement in machinery and methods of manufacture.

Government Assistance

The Coir Industry is fundamentally a cottage industry and there is no need for nationalisation or the provision of capital by the State. Some assistance from Government is however required in regard to research, the development of marketing on a co-operative basis, legislation for establishment of licensed warehouses, and improvement of communications.

Rope and other Fibre Industries

6. The Panel have not made any recommendation whatsoever.

Government Orders

7. Government have not yet passed any orders on this report.

Appendix I.

QUESTIONNAIRE ON NATIONAL PLANNING FOR INDIA

II. Census of Production

These questions have been taken from the questionnaire contained in National Planning Committee Hand Book No. I.

10. How far is your Province a deficit or surplus Province, or self-sufficient, in the matter of

- (a) food supply,
- (b) what industries are there for which (i) raw materials are available locally or (ii) have to be imported from outside,
- (c) key industries and essential public utility services, and
- (d) consumption goods ?

N.B.—By Consumption Goods is meant articles or commodities needed for immediate consumption, as distinguished from Production Goods, which are articles or commodities needed as implements or machinery or raw material to aid in the process of Production.

11. What are the principal industries conducted by individual workers in their cottages on a small scale ? How far are these industries open to and affected by competition and unable to maintain their existence as against large-scale industry in the same field ? What steps have been taken in your Province to co-relate the claims of large-scale as well as small-scale industries, principal or subsidiary ? How far have these means been successful ?

12. What are the industries concerned with the production of

- (a) consumption goods,
- (b) luxury goods,
- (c) Services goods needed for Public Utility Services, now being conducted in your Province ?

To what extent is there room for further development of any such industry for,

- (a) the local market,
- (b) the all-India market,
- (c) export abroad ?

13. Are there any Key Industries in your Province ?

N. B.—By Key Industries is usually meant industries which are the starting point or the basis for the equipment of other industries, e.g. making of machines, tools, plants needed in Industrial Development.

14. How far are "Heavy" Industries already in existence in your Province, and to what extent do these industries compete with corresponding industries within the country or outside the country ?

N. B.—By "Heavy" Industries is usually meant industries concerned in the manufacture of iron and steel and their products, engineering, chemicals, and their like.

15. What room is there for the further development of these "Heavy" Industries in your Province, and what steps would you suggest for achieving that end ?

16. How far is your government taking steps to aid, encourage, foster and protect the existing local industries, and develop new industries, which, owing to the available supply of raw material, labour and capital, as well as the necessary experience and knowledge, can be said to have a promising future within a definite period ? How far has success attended to the activities of the Government in this behalf ?

III. Raw Materials Needed for National Planning of Industries

(A) Agriculture

17. What are the principal industrial raw materials, available in your Province from the cultivation of land, on which new industries can be based or from which existing industries can be further developed ?

18. How far are these resources worked up today into finished products, and by what agency,—whether individual craftsmen, or small-scale organisation, or large-scale Joint Stock enterprises working with power-driven machinery ?

19. What possibility is there to develop the production of new or additional raw materials, whether available within the province, or imported from the neighbouring provinces, or States, or from foreign countries ?

(B) Forest Produce

20. How far are the products of forests in your Province utilised for the purpose of industrial development, building up new large or small-scale industries, the products of which are in demand in the provincial, national, as well as the world market

at the present time ? What are the difficulties you have come across for the proper industrial utilisation of these Forest Products in regard to Forest Law, Transport and Game Laws ?

21. What steps have been adopted to solve these difficulties?

22. What steps, if any, have been taken, or are in contemplation, to bring about the reafforestation of the denuded or deforested regions in your Province to develop forest industries or to afford protection or to attract rainfall ?

(C) Mineral

23. What are the chief mineral resources available in your Province ? How far are these resources already being exploited, and developed, and by what agency ?

24. What is the room for large-scale, mineral, or metallurgical industries in your Province ?

25. What is the policy of Government in your Province in regard to the grant of concession for the exploitation of mineral wealth in your Province ?

26. Are there any Industries in your Province for the working up of the mineral raw material found in your Province in the shape of metal sheets and metalware of all kinds ?

27. What agencies,—local, Indian, or non-Indian—exploit the mineral resources of your Province, under what form of organisation and on what scale of production ?

IV. Other Requirements of Industrial Development

28. What are the handicaps as regards the proper development of the various kinds of industries in your Province, relating to working up the raw materials into finished products of agriculture, forest, mines, animal resources, and "process" industries in regard to—

(a) Capital,

(b) Skilled workers,

(c) Adequate labour supply,

(d) Marketing and other respects,

(e) Transport ?

29. To what extent is capital, needed for such industrial development, available locally in your Province, or attracted from neighbouring provinces, or supplied from non-Indian sources ?

30. What are the institutions concerned in the mobilisation, attraction and investment of local or foreign capital ? To what extent these institutions need to be varied, improved or expanded,

so as to supply adequately the capital needs of Agriculture, Industry Commerce and other essential services to secure the optimum development of the Province all round ?

31. What measures, if any, have been adopted in your Province to control the supply and regulate the conditions of working of foreign capital invested in the industrial concerns operating in your Province ?

32. How far is your Province adequately supplied in respect of skilled workmen, technical experience and general industrial or business enterprise and markets within and outside your Province ? What steps are taken for making good the deficit, if any, of such requirement of industrial growth ?

33. What policy or line of action has been adopted by you for attracting on suitable terms, foreign technicians or experts in regard to particular industries ? What conditions and restrictions, if any, would your Government desire to apply in regard to the importation of such foreign technicians, scientists, or experts ?

34. What is the experience in your Province of the efficiency of available industrial Labour ? To what extent do the conditions of work and employment of industrial Labour safeguard, on the one hand, the worker against undue exploitation, and on the other, the community collectively, against inefficiency in Labour ?

35. How far, in your Province, are (a) the existing equipment in all large-scale industries, and (b) the actual form of the organisation and management of such industries, sufficient to guarantee a fair degree of industrial efficiency in out-put quality, etc ?

36. What are the industries already in existence in your Province, which enjoy, in one form or another, protection, aid or Provincial encouragement from the Central or Provincial Government in the shape of :

- (a) Protective customs duty,
- (b) Financial aid, e.g. a direct subsidy or bounty, or guarantee of purchase of a minimum quantity of output at fixed prices,
- (c) Cheap transport rates, "
- (d) Supply of useful commercial and technical information concerning such industries,
- (e) Furnishing of skilled, technically trained experts to found and maintain such industries ?

37. What agencies conduct such large industries in your Province—i.e. private enterprise, non Indian, Indian, indigenous to the province, or from outside the province, or any public statutory body within the province? How far is the development of industries under any of these agencies affected? How would you secure proper co-ordination of all these various agencies?

38. Are there any industries established in your Province, conducted directly by foreign capital, recognised and registered in India as Joint Stock Companies, or affiliated to a nominally Indian concern, e.g. by adding the words "India Ltd"?

What effective steps would you suggest to prevent this growing menace of "(India) Ltd.", and what remedies do you suggest, and what effective steps would you advise us to take, so that Swadeshi industries, as defined by the Congress, may grow up in your Province?

39. Are there any industrial concerns in your province, operating as part of an international combine, regulating that industry or as mere off-shoots, if not branches of foreign industrial enterprise? What steps would you adopt to regulate and control the working of such concerns in the best interests of the Province? Would you suggest an All India legislation on this point, and, if so, on what lines?

40. Do you notice any tendency amongst the large-scale industries in your Province combining with corresponding establishments of the same industry within the Province, or within the country, so as to make a substantial monopoly of the industry in hands of that combine? What are the consequences in regard to prices to the consumer within the country, labour conditions, industrial equipment and technique, in regard to such industries?

XIII.—Industrial And Commercial Statistics

146. What are the means available in your Province for the collection, compilation and publication of any economic information relating to industries, agriculture, commerce, transport, banking, etc. (concerning the Province of your own)?

147. How far are the statistical material reports and bulletins published by the Central Government relating to your Province accurate and up-to-date, as well as of direct interest and service to active industrialists, agriculturists and businessmen in your Province?

148. Are there any organisations of Trade, Commerce, Industry or Labour as well as of Agricultural Interests, which collect, compile and discriminate statistics and information relating

to these respective interests? What steps do you suggest to improve, develop and popularise such information?

149. What material or facilities are available, within the Province, relating to technological information concerning new discoveries, Patents or Inventions which relate to Industrial Processes, Business organisation, Agricultural methods and improvements and their like? What means do you suggest to make such information, if available, widely popular?

150. What steps are necessary to co-ordinate the information mentioned in the preceding question, relating to your Province, and the corresponding information affecting the whole of the country?

151. How far are facilities available in your Province in respect of an efficient Press as well as Publication and Propaganda Service? To what extent has experience shown it to be necessary to develop these services still further to make the country self-supporting in regard to the case?

Supplementary Questionnaire

I.—Manufacture of Goods at Present Imported.

1. Has there been ever any attempt to manufacture in this country any of the following articles, at present imported?

*** (See Table I.)**

This reference should be inserted at the bottom of the page

2. What steps have the various departments of Industries taken, from time to time, to draw public attention to these items and have them manufactured here?

II.—Failure of Indian Industries

3. What are those industries which, although they were started here, could not be carried on further and had to be subsequently closed down or are working at a great loss?

4. Which of the following causes do you ascribe to the failure or imperfect working (both financially and technically) of each of the industries thus affected?

(a) Want of fluid capital.

(b) Want of technical efficiency.

(c) Policy of not employing properly-trained technicians, although available in the country.

(d) Inability to utilise the process to Indian raw materials.

* This Table is reproduced in the body of the Report as Appendix I. on page —.

- (e) Inability to cope with the advances made in the line in foreign countries and with the changes in taste.
- (f) Inability to avoid excessive waste as compared with other countries.
- (g) Inability to utilise for other purposes the waste products of the industries.
- (h) Location of the industries at a place far from the raw materials and the markets.
- (i) Due to lack of sympathy on the part of the Government or failure to protect them against unfair foreign competition, i.e. absence of beneficial legislation.

III.—Quality of Products of Indian Industry

5. How do the products of Indian manufacture compare in their prices and other technical features with the imported goods? (Please give the information of as many products from the list (table I) as you know. Do not reply to this question from a general view point, illustrating by one or two industries).

6. How have these products been comparing with the imported goods ever since their manufacture in India?

•VI.—Protected Industries and Their Part in Industrial

Development

• 17. What industries have been enjoying protection and bounties from the State?

18. What steps have they taken or propose to take and what percentage of their profit (which has accrued to them due to bounties and protection) have they spent or propose to spend on developing other important and key industries, which were closely connected with their industries? For example, what steps have been taken by the Iron & Steel Industries to develop the metallurgy, casting technique and heat treatment of ferrous alloys which are the most vital processes in the manufacture of machines and tools, and what steps have been taken by the Sugar industry in the utilisation of molasses, in the preparation of alcohol, for use as fuel or in the preparation of acetic acid, for use as an important ingredient in the manufacture of artificial silk and other chemical industries?

19. (a) What steps have the Government taken to impress on the industries, enjoying such State help, that they are thus assisted because they are vital to national interests, and they must devote their time, energy and facilities in developing attached and allied vital industries and to see that it is done?

(b) If no steps have been taken up till now in this direction, what do you think would be the best way of achieving this object?

20. What steps would you suggest to ensure a co-operation in this direction between the Government, industries, universities, technical institutes and engineering colleges ?

VII.—Key Industries

21. Do you agree with the following definition of Key industries ? If not, give your own definition.

N.B. Key industries are those which aim at producing the means of production.

22. What do you say to the following list of Key industries? Would you like to amend it ? If so, please give your amendment and the reasons for it.

* (Table II)

23. Which of these industries are not working in India and which would you like to be started ? Give your reasons.

24. How many and which industries should be started at once in this country and what pace would you set for them ? Please draw a scheme as to the location of the industries, providing factories, with the workmen, technical staff, raw materials and the preliminary and fundamental tools and implements, the provision of organisation to help in the overcoming of difficulties, arising in the course of production, and to help in fixing the standards, which the produced goods must conform to ?

25. Even if it be thought that, due to the hostility on the part of the Central Government or the British Government, it will not be possible to start, in right earnest, any major key industries at once, do you not think that it would be advisable to start all the key industries on a small scale at once, as it would help in the accumulation of technical experience and trained technicians ?

26. For raising capital what objection do you think lies in the procedure adopted in collecting funds for Jubilee Celebration or some such activity ? Why should not such a system be adopted for raising funds for starting key industries in this country ?

XII.—Standardisation

65. Do you realise that to introduce an economy in the productive capacity of the industries, and to bring about a simplicity and efficiency in the use of the various articles, there should be a thorough standardisation of the type of goods manufactured ?

* This table is reproduced in the Introduction to the Report on page 18.

66. Are you aware that there is no such independent, but thoroughly representative, efficient and responsible body in India, which should be in charge of standardisation for this country, although there exists such a body in every civilised country ?

67. Are you also aware that the few standards that do exist here are but a copy of British standards, and do not effectively serve the needs and demands of the country ?

68. Do you not think that a body similar to the British Standards Institution, be set up in this country, with a thorough technical representation of the producers and consumers and other Scientists and Technicians, and a procedure of setting up standards be adopted similar to that of the British body ? If not, what system do you propose ?

69. Do you not think that an independent laboratory be maintained to check and evolve the various standards, and work, in general, as a standardisation laboratory and testing laboratory ?

70. (a) What do you say to making such necessary changes in the working, organisation and status of the Government Test House, so as to enable it to serve as an independent standardisation laboratory instead of a minor establishment of the Indian Stores Department ?

(b) Do you not think that such a reformed test house will ultimately serve the purpose, for this country, as does the National Physical Laboratory for England, or the Bureau of Standards for U.S.A.?

Appendix II.

**EXTRACTS FROM THE PROCEEDINGS OF THE MEETING OF
THE CHAIRMEN AND SECRETARIES OF THE SUB-
COMMITTEES HELD AT BOMBAY ON THE
12TH FEBRUARY, 1940.**

The National Planning Committee had previously laid down certain general principles in regard to these matters. These will be found in the Red Book. I should like to draw particular attention to—

- (1) The Congress Karachi Resolution which states that "the State shall own or control Key Industries, and Services, Mineral Resources, Railways, Waterways, Shipping and other means of public transport".
- (2) Page 74 of the Red Book, paragraphs 12 and 13 of my memorandum, dated the 4th June, 1939. This memorandum was subsequently approved by the N.P.C.

It is thus seen that the National Planning Committee has already gone far in laying down the principle that Defence Industries, Key Industries and Public Utilities should be either State-owned or controlled. A discussion took place at the meeting of the 11th February, as to which of these should be state-owned and the measure of control in regard to the other.

In regard to Defence Industries, it was decided that they must be owned and controlled by the State. Regarding Key Industries, the majority were of opinion that they should also be State-owned, though a substantial minority considered that State control would be sufficient. It was made clear, however, that any control of such industries must be a rigid one.

Public Utilities, it was also decided, should be owned by some organ of the State, such organ being either the Central Government, Provincial Government or a local Board. It was also possible to have something of the nature of the London Transport Board controlling such Public Utilities.

In regard to other important and vital industries, which are not Key Industries, or Defence Industries, or Public Utilities, no special rule was laid down. But it was made clear that the very nature of planning required control in some measure. What this measure should be might vary with the industry in question.

Appendix III.**NOTE FOR THE GUIDANCE OF SUB-COMMITTEES
OF THE NATIONAL PLANNING COMMITTEE**

(1) The National Planning Committee has been entrusted with a task which is vast in its scope, vital in its significance and intimately connected with the progress and future well-being of the people of this country. In order to have the fullest assistance and co-operation of others in this task, the committee has appointed a number of sub-committees consisting of eminent and distinguished experts in various fields of national activity. Planning is a much-used word in the world to-day ; yet, in India, this is the first attempt to plan on a national basis and to co-ordinate the manifold activities of the nation. Many fundamental questions arise as to the nature of this Planning, the objective in view and the methods to be adopted. Final decisions on most of these questions will have to be taken at a later stage by the Planning Committee, and the ultimate acceptance of those decisions and their application will lie with the representatives of the people. But there cannot even be an approach to planning without some clarification of the objectives and the methods to be employed.

(2) The Chairman of the Planning Committee in a memorandum which he presented, drew the attention of the Committee to some of the guiding principles and objects which should govern national planning. A copy of this memorandum is attached to this note and the particular attention of all members of sub-committees is invited to it. This note has been prepared in further amplification of the Chairman's memorandum for the guidance of the sub-committees. It is of the essence of planning that there should be co-ordination between various activities, and it thus becomes necessary that the various sub-committees should have a common purpose governing their outlook and should co-operate together in building a National Plan which is an organic whole, each part of it having its proper place and fitting in with the other parts.

(3) What is planning ? Planning under a democratic system may be defined as the technical co-ordination, by disinterested experts, of consumption, production, investment, trade and income distribution in accordance with social objectives set by bodies representative of the nation. Such planning is not only to be considered from the point of view of economics and the raising of the standard of living but must include cultural and spiritual values and the human side of life.

(4) Such a plan thus requires a social objective and the power and authority to give effect to the Plan. If this power is

limited in any way or there are other restrictions, political or economic, which come in the way of the working out of the Plan, no comprehensive planned economy can develop. Real Planning can only take place with full political and economic freedom, and a national plan must, therefore, be based on India having sovereign authority. At the same time, in view of present circumstances prevailing in the country, and the restrictions that have been imposed upon us, the Plan must also indicate what is immediately feasible and what steps should be taken, even under existing conditions, to work towards the realisation of the national resources for raising the standard of life. Such steps must be in keeping with the scheme of a planned economy, and in no event must anything be done which might come in the way of that Plan.

(5) There is a large measure of agreement in the country about our social objectives and yet there are vital differences also. It is possible that many of these differences might be resolved as a result of this enquiry. To some extent these objectives have been indicated by the National Congress in a number of resolutions and by the general policy it has pursued. We must adhere to this general policy and keep these objectives in view. Reference has been made to these in the Chairman's memorandum.

(6) The Congress has laid stress for many years on the development of cottage industries and has sought to direct the attention of the country to the condition of the villagers. We cannot forget that emphasis or ignore the fact that all progress in India must be measured in terms of raising the standards of India's millions. An apparent conflict has arisen in the minds of some between the claims of cottage industries and those of large scale industries. This conflict is largely one of emphasis. It is clear that in India the development of cottage industries on a vast scale is essential for the well-being of the masses. It is equally clear that the rapid development of large scale machine industry is an urgent need of the country. Without industrialisation no country can have political or economic freedom, and even cottage industries cannot develop to any large extent if economic freedom is absent. Without industrialisation also the rapid and effective raising of the standard of the people is not possible. Key industries, Defence Industries and Public Utilities must be developed on a large scale. Even the development of cottage industries is helped greatly by the supply of cheap power and suitable machinery for cottage use, which are obtainable from the working of large scale enterprises. To some extent handicrafts and large scale industrial enterprises are complementary to each other. The problem before the country, therefore, is one of co-ordinated growth in

both directions and the avoidance, so far as is possible, of conflict between cottage industry and large scale industry.

(7) The emphasis of the Congress on cottage industries is chiefly due to its desire to have a more equitable system of distribution and to avoid the evils that have resulted from indiscriminate and uncontrolled industrialism. Distribution is the vital corner-stone of any planned economy and the evils of industrialism can and should be avoided if there is an equitable system of distribution. In the national Plan for India a proper scheme of distribution must therefore be considered as essential.

(8) The resolution of the Delhi Conference of Ministers of Industries, which led to the formation of the National Planning Committee, is a clear direction to the Committee to hasten industrialisation, and calls for the development of heavy Key industries, medium scale industries and cottage industries. These are the terms of reference of this Committee. It should be further remembered that the Congress has laid down in its resolution on Fundamental Rights that "The State shall own or control Key Industries and Services, Mineral Resources, Railways, Waterways, Shipping and other means of Public Transport."

(9) The principal objective of planning the national economy should be to attain, as far as possible, national self-sufficiency and not primarily for purposes of foreign markets. This does not exclude international trade, which should be encouraged, but with a view to avoid economic imperialism. The first charge on the country's produce, agricultural and industrial, should be to meet the domestic needs of food supply, raw materials and manufactured goods. But outlets for surplus goods may be explored to meet the requirements of India's international indebtedness.

(10) The fundamental aim to be kept in view is to ensure an adequate standard of living for the masses. An adequate standard of living implies a certain irreducible minimum plus a progressive scale of comforts and amenities.

The expression in terms of money is only used for the sake of convenience, the real measure being in terms of goods and services.

(11) A really progressive standard of life will necessitate the increase of the national wealth five or six times. But for the present the minimum standard, which can and should be reached, is an increase of national wealth of, between two and three times, within the next ten years. It is with this object in view that we should plan now.

(12) Planned advance has to be measured by certain ob-

jective tests from year to year. These may be laid down as follows :—

- (i) The improvement of nutrition from the standard of an irreducible minimum requirement of proteins, carbohydrates and minerals as well as necessary protective foods, having a calorific value of 2400 to 2800 units for an adult worker.
- (ii) The improvement of clothing from the present consumption of about 15 yards, on an average, to at least 30 yards per capita, per annum.
- (iii) Housing standards to reach at least 100 sq. ft. per capita.

(13) Viewed from another standpoint the following indices of progress should be borne in mind:—

- (i) The increase in agricultural production:—To meet, at least, the requirements laid down in 12(i) and (ii) above.
- (ii) The increase in industrial production ;
- (iii) The diminution of unemployment ;
- (iv) The increase in per capita income ;
- (v) The liquidation of illiteracy ;
- (vi) The increase in public utility services ;
- (vii) Provision of medical aid on the basis of one health unit for 1000 population ;
- (viii) The increase in the average expectation of life.

Statistical data have to be collated and compared with a view to measure the progress of the Plan, from time to time. The development of statistical work will be necessary to keep pace with the development of planning.

(14) The different sectors of the Plan have necessarily to be co-ordinated. The essence of planning is an advance on all fronts. There must be agricultural planning, the object being that the country should be, at least, self-sufficient as regards food stuffs, measured in terms of the food index given above, and as regards the quantity of raw materials, this should be raised by a pre-determined percentage. Soil conservation, afforestation, grass land management, flood control and river management and improvement of inland navigation and transport, improvement of live stock and fodder supply, are items in the planned programme which have not yet been taken up systematically. Power development and the conservation and development of coal and other kinds of fuel for industrial power also demand

planning. More important is the planning of different kinds and types of industries, large, medium and cottage, which alone may effectively mitigate the present pressure of population on the soil. Within a decade the aim should be to produce a balanced economic structure in which about half the population would depend on agriculture.

(15) Education, general and vocational, and developmental research also have to be included in a planned programme. The place and organisation of public services should be in keeping with the requirements of the Plan.

(16) No planning can succeed if the rate of economic progress is outrun by the rate of increase in population. In the planned economy in India emigration shall not be based on the deliberate policy of developing population so as to create a surplus to settle in other countries ; but such surplus may be allowed to emigrate through agreements with other countries with due regard to the rights of such settlers in those parts.

(17) A ten year limit for the accomplishment of the Plan with control figures for different periods and different sectors of economic life should be laid down.

(18) Defence industries should be owned and controlled by the State : Public Utilities could be owned or controlled by the State ; but there is a strong body of opinion which is in favour of the State always owning Public Utilities. Other Key industries should be owned or controlled by the State.

(19) Other conditions, such as availability of raw materials and resources, and ready access to large consuming centres, being equal, special attention should be devoted in the Plan to the development of industrially backward regions. In recommending the distribution of the several industries all over the country, care should be taken to see that full opportunity is available to every Province and State to develop, as far as possible, its raw materials, employ its labour and invest its capital.

(20) Labour legislation and codes, health, sickness and unemployment insurance, national housing and social welfare schemes will have to be co-ordinated with the Plan. The Provinces and States will initiate these, but the National Planning Commission should lay down the general policy governing the minimum standard of wages and the employment of labour.

(21) Provinces vary in capital resources and in the capacity for industrial experimenting and pioneering. It will be desirable for them to work through the National Planning Commission with its appropriate adjuncts.

(22) As regards ways and means for a planned economic development in general the credit of the provincial and central Governments should be fully utilised to raise necessary finance, and the investment policy of the banking and insurance institutions of the country will have to be changed in order to further industrial planning. Reorganisation and control of the currency system are essential for economic recovery.

(23) A complete scheme of planned economy is a vast undertaking requiring full information and data and the willing co-operation of the technical experts, industrialists, administrators and the public at large. It is a progressive scheme being continually adjusted to changing conditions and always taking advantage of the experience gained in its working. The National Planning Committee is obviously not in a position to draw up such a complete scheme nor does it intend to do so at this stage. What is intended now is to lay the foundation of a planned economy on which the future structure can be built. But even at this stage the full picture must be envisaged, a complete outline drawn up, which can be filled in later as opportunity comes and further materials are available. India is one of the very few countries in the world which has practically all the resources within its borders of building up a planned system.

(24) The Committee therefore proposes to proceed on the existing data, or on such materials as can easily be obtained, and to draw up a broad outline picture.

FURTHER INSTRUCTIONS TO SUPPLEMENT THE INSTRUCTIONS TO SUB-COMMITTEES.

It is assumed that in all probability the future constitution of the country would be democratic, in which the claims of the several federating units, whether Provinces, States or Regions would be impossible to ignore. Regional planning, mutually co-ordinated in all respects, must also be part of the national programme, in order not only to ensure the fullest development of the available resources and to provide employment for all adult citizens competent to work, but also to guard against any outbreak of inter-provincial jealousies or rivalries resulting in avoidable impediments or dissipation of energy.

Attention, however, was drawn to the objective, now being emphasised in all advanced countries, of providing full employment to all capable adult citizens, and ensuring social security of the entire working community on a proper provision against normal contingencies of life and work. The desirability of public outlay being undertaken, if necessary, specifically to provide such employment, after private and institutional demand for skilled or unskilled labour had been met, was commended for consideration by the Planning Committee. The Sub-Committee believe that in a regime of planned economy, such work provided by public expenditure would be less expensive and easier to carry out than in an unplanned system.

Turning next to the important changes or developments that had taken place during the six years since the National Planning Committee had been established, the Committee considered the list prepared by the Convenor in that behalf; and suggested that, while it was not competent for that body to make any detailed list of new scientific discoveries, technological improvements, or mechanical inventions, which had taken place in the course of the war, or because of it, in issuing directions to the Sub-Committees, and laying down the general objectives of national planning afresh, attention should be invited to these developments as regards material processes, scale of production, etc., which had been, in many cases revolutionising important industries, and methods of production and distribution. New Industries, like plastic or processes, and the equipment appropriate for the same, should be taken due account of by the Sub-Committees concerned in each case.

It is essential that much greater attention should be paid to making scientific and technical research as an integral part of planned economy. Universities and research institutions should be organised to permit of fundamental and basic applied research on the widest possible basis being undertaken in the

country. Further, industrial research should be comprehensively planned and linked with the development of industries, and industrial research organisations created, best suited to the needs of individual industries.

To put research actively on a proper basis, highly trained personnel with first-class scientific ability in progressively growing numbers will be needed. To produce these workers, two things require to be done ; (1) to build up as rapidly as possible institutions in India which can give the highest type of scientific training of the most varied type, and (2) to have men trained abroad to meet the scientific and industrial needs of the country in the very immediate future. For the first purpose, we should immediately send abroad selected personnel from scientific departments selected for development, so that they may undertake to put their departments on a proper basis. For the second purpose, we should first decide the industrial projects which we plan to have fulfilled and then select the most suitable workers capable of fulfilling them and send them abroad as teams with specific duties assigned to each of a team.

It may be added that in many industries now, the war has brought about many new processes, or inventions which, for reasons of national security, have been kept secret. The National Government will have to adopt the necessary ways and means to secure the use of such processes or equipment for planned industry in India. Trade treaties negotiated through the usual diplomatic channels must concern themselves increasingly with such matters to make up India's leeway in this behalf. The same may be said with regard to utilisation of waste products from existing industries ; or provision of substitutes for industrial materials (e.g. synthetic rubber).

Equally important changes had taken place on the organisational or administrative side of public economy in every country, which must likewise be duly taken into account by the Sub-Committees concerned, as well as by the National Planning Committee.

The most outstanding example of such change is in the matter of public control of industry and business. It takes a variety of forms, e.g. price control, fixing the minimum as well as the maximum ; rationing supply of finished goods as well as raw materials ; regulating transport and other utilities or services ; licensing of dealers, and the like. Similarly there is control of labour organisations with a view to ensure continued production. This was necessitated for the war, and put up with during that period for reasons of military necessity ; but may be demurred to after that compelling necessity is over. The principle of control, however, has come to stay, especially

under planned economy. The Committee accordingly instructs its appropriate Sub-Committees to take note of this most important change and make their recommendations so that the least possible obstruction comes in the way of carrying out the National Plan. Work must not be stopped, if it could possibly be helped. A system of conciliation and compulsory arbitration in all labour disputes may be necessary; and the Sub-Committee concerned should be called upon to suggest the necessary machinery, with adequate safeguards for the effective protection of labour.

As part of the objective mentioned above of securing the fullest possible employment of all adult workers in the community, and ensuring their proper social security, reference was also made to the war-time development regarding the fixing of minimum and maximum prices for primary produce, as well as manufactured goods and services like shipping. The principle of price fixing had already been accepted. Even though introduced in response to the war-time emergency, not always in the real interests of India,—it has continued in operation, and might continue even in normal times after the transition from war to peace has been effected. Corresponding to the policy of guaranteed minimum prices to the primary producer, there should be a reasonable relation between prices of agricultural products and manufactured goods. There is also the principle of a minimum wage as part of social security system. The Labour Sub-Committee of the Planning Committee has endorsed them. But the principle needs to be emphasised and universalised. Guaranteed prices, it need hardly be added, is one of the means for assuring social security to the large mass of the agricultural workers in this country, whether owners of land themselves or tenants-cultivators. Landless labourers would have to be assured a minimum wage.

The programme of intensive and rapid industrialisation of this country, as affected by the growth of international indebtedness, in which India has become a large creditor, and the locking up of Indian capital assets in the Sterling Balances in London, will require special consideration. As this is a matter inter-woven with the world economy as a whole, the Sub-Committee would leave it to the Planning Committee to give its directive on the subject, or enunciate a definite policy which it would recommend to the national government in that behalf.

Incidentally, mention may also be made of the problem of foreign capital invested in industrial concerns in this country, and its reaction upon the management of such industries. National Planning would not be easy nor effective so long as any item, which is part of the Plan, is not fully amenable to the

control of the National Government of India. The National Planning Committee has, therefore, passed a suitable resolution regarding the scope allowed, if any, for investments to foreign capital in Indian industries which are integral part of the national plan, and their claims for control and management of essential or important industries in this country.

A similar question arises in connection with the Defence Industries. The problem of national defence is not confined, in our times, to raising, training and equipping the forces deemed necessary to fight the country's battles by land, or sea, or air. These must be fed and clothed and moved from place to place as needed; and cared for when wounded. For all these, the industries supplying the necessary material must be developed and their development must be part of national security and the planned industrialisation of the country must take stock of them.

Another very important change, the Planning Committee consider, or development due to war, which has been least taken account of, is concerned with the great deterioration on the moral plane. Innumerable complaints have been made from non-official sources, and recorded even in official channels regarding corruption in high places, and the general decline in moral standards. No plan, however soundly framed, would succeed in execution, if the moral fibre of those entrusted with carrying it out is weak.

Coming next to the question of Priorities, the Committee was of opinion that the models of Priorities hitherto found, e.g. in the Russian Plan, which led to the intensive development of heavy, or armament industries for reasons of national security, —will have their bearing upon the National Plan framed for this country. Any scheme of intensive and rapid industrialisation and all-round economic development must necessarily be based on the development of power, and place relatively greater emphasis upon key or basic industries, so as to make the country relatively self-sufficient in this vital concern, within a measurable or predetermined space of time.

At the same time the need for consumers' goods, especially after five or six years of war-time stringency and repression of demand, cannot be overlooked. The problem of relative urgencies must be co-related with our resources as well as requirements. The Planning Committee consider the human needs for food, clothing and shelter the most important and urgent of all. They, therefore, consider that, with due regard to the needs of intensive industrialisation, all industries concerned with these primary needs of life, should be developed simul-

taneously, with as much attention to the needs of each unit, region, and industry, as well as the consumer, as possible.

It has been assumed by the National Planning Committee from its very start that planning to be effective must be comprehensive, a simultaneous attack on all fronts of the national economy, so as to arrive at the desired goal, without creating any unnecessary local depressions or elevations which may lead to an avoidable lack of equilibrium. Note must, at the same time, be taken of the excessive development of certain industries, because of the wartime demands; and the needs for such industries to be maintained, or safeguarded, after the war is over, if they can be easily fitted into the peace-time National Plan. Careful and detailed investigation will have accordingly, to be made in individual industries, with a view to find out ~~which of them~~ need to be supported or safeguarded, and which would be too costly to be maintained, and should, therefore, be scrapped. Adequate protection, encouragement, or safeguard should be provided to such industries as are found deserving by an appropriate fiscal policy, which the National Planning Committee may recommend to the national government after full consideration of the report made by the Sub-Committee investigating this matter.

Hitherto the Committee has made no mention of small or cottage industries which still provide a very considerable amount of the country's requirements, particularly in regard to consumption. That does not mean that the Committee is unmindful of the place of importance of such industries. Until the country reaches the ideal of self-sufficiency the planning authority will have to pay every possible attention in this section of the country's industry. It may even have to be protected or safeguarded against competition from machine made goods and the Planning Committee should, in their final Report, make appropriate recommendations in this behalf. The Committee desires to emphasise the important role of cottage industries in the national economy. They will provide a very considerable proportion of consumers' goods and employment to a very large number of workers. The organisation of cottage and small scale industries in Industrial Co-operatives requires special attention. This may be found to be peculiarly suited to the conditions prevailing in India.

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